

PUBLIC VERSION

Before the
LIBRARY OF CONGRESS
Copyright Royalty Board

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In the Matter of)	
_____)	
ADJUSTMENT OF RATES AND TERMS)	Docket No. 2006-1 CRB DSTR A
FOR PREEXISTING SUBSCRIPTION)	
SERVICES AND SATELLITE DIGITAL)	
AUDIO RADIO SERVICES)	
_____)	

WITNESS TESTIMONY FOR
XM SATELLITE RADIO INC.

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October 30, 2006

1. Parsons

PUBLIC VERSION

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Adjustment of Rates and Terms for)
Preexisting Subscription and) Docket No. 2006-1 CRB DSTRA
Satellite Digital Audio Radio Services)
_____)

DIRECT TESTIMONY OF GARY PARSONS
(ON BEHALF OF XM SATELLITE RADIO INC.)

1. My name is Gary M. Parsons. I am currently Chairman of the Board of Directors of XM Satellite Radio Inc. ("XM"), a position I have held since May 1997. As Chairman, I participate directly in the development of XM from concept to service, and share the responsibility to oversee and implement XM's business operation.

2. My testimony primarily will focus on XM's company history, the substantial risks inherent in the launch and continuation of its business, and its prospects for the future. To summarize some of the key points:

-- The challenge of taking XM from an on-paper concept to an on-the-air broadcast service was virtually unprecedented in the radio industry. We built the new satellite radio industry and the XM business from scratch from technological, business, and programming perspectives.

-- XM has required extraordinary infusions of capital from inception to the present stage of our development as a company. XM forged significant partnerships to attract the

massive funding required to launch and operate the business, and the automotive and retail marketing support to become successful. Despite many formidable challenges, XM was able to launch the service in 2001, approximately five years from the company's inception. XM since has grown to serve more than seven million subscribers in less than five years since launch.

-- Despite XM's success, we are a young business that is still developing. By the end of 2006, XM will have invested more than \$6 billion to reach where we are today. We are not yet cash flow positive. Despite substantial increases in our subscriber base and revenue, analysts estimate that XM will continue to lose more than \$1.9 million per day. To continue building our business, XM requires significant ongoing investments to maintain and improve its infrastructure, and to effectively market the concept of satellite radio as well as the XM service. Because of the high-risk nature of the satellite radio business, our investors from inception to the present expect high returns on their investments and have yet to see that return. In fact, our stock price today is 10% lower than when the company first went public in September 2001, indicating the investment community's concerns over XM's ability to generate profits in the next several years. We face many risks ahead before XM becomes a business that is profitable and begins to provide any reasonable return to our investors. An increase in our royalty fees could disrupt the tenuous balance between our already substantial costs and our uncertain future returns.

-- The fundamental value proposition of XM is built on diversity of programming, exclusive content and a unique and powerful delivery platform to serve both the mobile (automotive and hand-held portable) and the home environment. This value proposition includes offering content that appeals to both mainstream and niche audiences across a broad demographic, particularly exclusive programming such as sports and talk, brand-name but limited availability content (such as CNN and Fox News), and XM's commercial-free music

programming. The depth of XM's programming appeals to "fans" of the many different kinds of content we broadcast. Music fans learn from XM about new music, artists and genres they had not been exposed to before, and buy music and concert tickets based on the exposure these artists received on XM.

Personal Background and Management Experience in Communications

3. After graduating with an engineering degree from Clemson University and an MBA from the University of South Carolina, I worked for ten years at BellSouth Corp. After the breakup of the Bell System in 1984, I became Executive Vice President of a fiber-optic and long-distance service startup, Telecom*USA. I joined MCI Communications Corporation ("MCI") when MCI acquired Telecom*USA. I served in a variety of roles at MCI from 1990 to 1996, including as Executive Vice President of MCI and as Chief Executive Officer of MCI's subsidiary MCImetro, Inc.

4. In 1996, I became Chief Executive Officer of both American Mobile Satellite Corporation ("AMSC"), a data-services company that provided satellite technology for truckers, the Red Cross, and government institutions, and American Mobile Radio Corporation ("AMRC"), its subsidiary created in 1992 to study a multi-channel, nationwide audio service provided via satellite direct to subscribers. Based on my belief that satellite technology would appeal to a wider consumer market for audio radio services as well as data services, AMSC decided to pursue a satellite radio license through AMRC, whose name was subsequently changed to XM Satellite Radio. Following the recruitment of Hugh Panero as CEO of XM Satellite Radio in 1998, I have continued to serve as Executive Chairman of XM.

Challenges XM Faced to Launch an Unproven Technology and Business

5. XM had to overcome many significant challenges to create a new satellite-based audio entertainment business. Like other satellite businesses, massive investments would be required to build the business. XM would have to expend years of effort and billions of dollars before receiving our first subscriber dollar, and we would face a host of formidable technological and business risks. Given the nature of satellite radio, XM had to overcome a number of obstacles and risks not previously encountered or surmounted by other satellite-based businesses. Many of these risks persist to this day, and many of the decisions that were necessary to the launch of the business present ongoing challenges to XM profitability.

Creating a New Radio Business Model

6. At the outset, our belief was that the success of the Direct Broadcast Satellite (“DBS”) television services -- DirecTV and Echostar -- showed that people, particularly those living in rural environments, were willing to subscribe to a satellite service that provided a broad variety of entertainment and information channels. We also recognized that a national service would appeal to professional truckers and drivers who lose the signal of favorite local stations as they drive long distances. With the consolidation of terrestrial radio stations, escalating commercial minutes and narrowing formats, we perceived an unmet consumer need for XM’s concept in the urban and suburban populace as well. In short, we anticipated that a nationwide service offering programming diversity and choice, coupled with high-quality audio, and limited or no commercials on the music channels, would appeal to enough different demographic sectors to create a prospect of future success.

7. While the DBS example was useful, our effort was unparalleled in the radio industry. We were not just starting another station or acquiring and managing a group of radio

stations. XM was to be a different kind of audio service and a different kind of satellite business, with national reach in the home, office and automobile. We were creating a new industry from the ground up, and had to raise immense amounts of capital to support our new technology.

Challenges to Raising Sufficient Early Capital to Fund XM

8. Our largest concern during the 1997 to early 2000 timeframe was raising the billions of dollars needed to launch commercial service. The first hurdle requiring substantial sums of money was the acquisition of XM's license. In October 1997, XM paid \$90 million for one of the two available satellite digital audio radio service licenses. Including the contracts for building the satellites and other expenses such as salaries for the initial personnel, XM paid out [] at this early stage. The initial funding for the license came from parent company American Mobile Satellite Corporation ("AMSC") and WorldSpace, a digital satellite radio network that currently broadcasts in Asia, Europe, and Africa, which became a 20% equity partner. In the 1990's, WorldSpace was in the process of developing an international service facing many of these same challenges.

9. In July 1999 six investors, including business partners General Motors, Clear Channel Communications, and DirecTV, joined AMSC, and AMSC bought out the WorldSpace ownership interest. These entities invested \$250 million in the business, and provided expertise in various elements of the business, such as billing, programming, and customer service. These investors entered into contracts with XM for programming or distribution, and some of these contracts even provided the investor with a portion of the bandwidth on the planned XM system. For example, XM's long-term distribution agreement with GM requires XM to make guaranteed payments of over \$300 to date, to subsidize the installation of XM radios in new GM vehicles, to make additional payments based on the subscription revenue attributable to GM vehicles with

XM radios installed, and to make available a certain amount of bandwidth for GM audio and/or data transmission. Deals with American Honda likewise provided them substantial returns on their investment, as well as data transmission rights for in-vehicle data services (such as information and traffic services featured in recent television advertisements).

10. XM had no real choice but to enter into these and other deals when they were made. XM needed the early infusions of capital and the marketing platform to reach consumers through factory installation of XM radios in new cars, both of which were absolutely crucial to the development of XM as a viable consumer offering. The size of the required investments, the risky nature of the investments, and the nature of the investment marketplace required us to provide our business partners lucrative agreements that gave these investors an added interest in the XM business. At that time, we were competing for capital against high-tech “dot-com” companies that were expected to deliver extremely high rates of return within a very few years, based on fairly modest capital investments and low infrastructure requirements. By contrast, our business required massive infusions of capital to build both the broadcast infrastructure and a new programming service, with no guarantee of success, and with a certainty that it would be years before the business could launch its service and generate any revenue whatsoever. For these reasons, XM could not raise money simply by promising a high rate of return, nor could we raise our early capital through Wall Street alone.

11. After receiving these early infusions of capital through our business partners, in 1999, XM became a publicly traded company.

Capital and Technology Challenges Before Launch of the XM Satellites

12. With sufficient capital behind us, we successfully recruited top-notch personnel to create the technology and infrastructure for the XM satellites, transmission facilities, studios, and business. XM had to invent, design and build all aspects of the business needed to create and distribute this service. XM has compiled an intellectual property portfolio in excess of 40 patents in this field, and additional patent applications remain pending before the U.S. Patent and Trademark Office. We had to surmount formidable technological challenges in creating the satellite signal, designing and building the satellites and transmission facilities, and designing the chipsets and the radio receivers. There was no room for error. We had to do it all correctly before launching the satellites.

13. In March 2000, the status of the economy and the capital markets changed precipitously when the “dot-com” bubble burst. At that time, we were in the midst of designing and building out our broadcast facilities and our transmission and radio receiver technology. We were still more than a year and a half away from launching the service and obtaining any revenues. We anticipated pre-launch costs approaching [], and many technical milestones needed to be achieved before we could go live. I was very concerned that the capital markets would become less receptive to a risky, capital-intensive technology venture at a time before launch when XM would require additional substantial investments.

14. Until mid-2001, I also was concerned whether the transmission and reception technology would work in a manner that could meet reasonable customer expectations. To succeed, XM had to be a truly robust coast-to-coast broadcast service. Our signal had to blanket the country to reach automobiles, trucks, and pleasure craft, as well as fixed or portable XM radios used in a listener’s home, office or other location. Convincing consumers to pay for audio services they were used to getting for free meant that the reception for XM had to be extremely

reliable in a wide variety of challenging man-made and natural environments. Subscribers would expect to hear XM in their cars without interference or interruption, regardless of vehicle speed or terrain. Even momentary signal cut-outs during a game or a song could be unacceptable. To ensure a seamless listening experience, we not only had to design, build and maintain our satellite system, but also had to invest [] million through 2005 in a ground-based repeater network to retransmit the signal from our satellites in urban environments, so as to provide reliable digital audio service to all XM radios. It was not until our repeater network was in place and we could perform actual reception and drive-testing that I felt assured that XM could provide the kind of continuous listening experience that subscribers would demand.

Challenges in Launching the First XM Satellites and the XM Service

15. Once we had successfully tested the transmission system using simulations in the field, we finalized preparations to launch our satellites. Because of our need for an omnidirectional, high-powered signal capable of being received by a car antennae rather than a parabolic dish antennae, we could not rent time on existing satellites. Designing, building, launching and insuring each satellite cost us on average more than []. The launch itself is inherently risky, even for the most experienced launch companies. Launch insurance alone for the three satellite launches cost us []. Moreover, at the time of the launches of XM's first satellites on March 18, 2001, and May 8, 2001, the company performing the launch (Sea Launch) was itself a new service that had only successfully launched a handful of satellites.

16. On September 25, 2001, XM began to roll out service to subscribers in certain markets, after our September 12, 2001 service launch date was postponed due to the events on September 11, 2001. November 12, 2001, marked the official launch of full nationwide XM service. Although at the time the licenses were awarded and satellite contracts were signed, we

had envisioned offering 50 channels, due to technical advances, we were able to launch with 100 channels. It required [] of capital expenditures to boost the satellite power as well as research and development spending to achieve this channel increase. Initially, 71 of these channels were music channels; the remaining channels were primarily news, talk and sports.

Marketing Challenges and the “Value Chain”

17. The single largest question investors had in the 1997 – 2002 period was whether a broad enough cross-section of consumers would be willing to pay for radio service, and whether XM could attract more than just a minimal group of early adopters. We therefore recognized that another key to the future success of XM was our ability to aggressively market XM to a mass audience.

18. These marketing efforts depended on more than XM alone. XM needed to forge strategic partnerships with many companies at each link of the value chain to commit sufficient resources to developing and marketing XM. This included consumer electronics companies to build the radios that XM designed; automobile manufacturers such as GM and Honda to include the radios and service as a factory-installed feature in their vehicles; sales distribution partners such as Circuit City and Best Buy to help us get radios in the hands of consumers; and diverse, compelling brand-name program content, including key content available only by subscribing to XM, to augment the high quality programming being created by XM. We needed each of these partners to help launch our business, and we still need them today for our business to grow and to someday turn a profit.

19. In return for their support, however, they each require significant incentives. Certain automobile manufacturers [

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20. Similarly, XM must pay to produce and license content. To compete against terrestrial radio, internet music offerings, and the other satellite radio licensee, Sirius, XM must carry exclusive content available only on XM, such as live sporting events carried on a national basis and talk and entertainment programs featuring well-known on-air personalities. Exclusive content commands a high price, but that must be weighed against a number of factors, such as the ability of that content to attract new subscribers and keep existing subscribers; the potential increase in advertising revenue from that content; and the negative impact of a competitor acquiring that content. High-value brand name content, such as Fox News, ESPN and CNN, also has limited availability through other mobile audio providers and requires very substantial annual payments for carriage on XM. These programming services bring returns in subscriptions, subscriber satisfaction, advertising revenue and enhancement of the XM brand. [

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21. XM also spends tens of millions of dollars annually to create and produce the music programming for XM's 69 commercial-free music channels, and currently pays tens of millions of dollars annually in royalties for the music and sound recordings performed over the XM service. To create the unique sound of XM, we have attracted a highly skilled and dedicated

staff of programmers and on-air talent. Collectively, our staff have more than one thousand years of on-air broadcasting experience, hold more than 300 gold records awarded by the RIAA reflecting their contributions to the recording industry, 62 record industry awards, two Emmy awards, and four New York Festival Awards.

22. Every piece of this value chain has to work in harmony. [

] Even with seven million subscribers and nearly a billion dollars in recurring revenue, analysts estimate XM continues to incur losses of more than [] and has not yet generated any profit for itself or its shareholders. Yet despite the magnitude of the payments XM makes to individual business partners and suppliers, it is doubtful that any XM partner believes it is receiving sufficient compensation from XM. To the extent that any one or more of these partners demands greater compensation, the balance tips further.

23. [

] However, these investments in XM's past development and current efforts have been necessary to build the business. Substantial additional investment capital is needed to support XM's ongoing operations and future development, and to secure XM against the possibility of unforeseen risks. XM learned some years ago that because of an unanticipated manufacturer defect, our first two satellites began losing the ability to generate sufficient power several years sooner than anyone expected. That compelled XM to accelerate its plans to launch additional satellites to maintain and improve our nationwide coverage. We launched a third satellite in February 2005 and our fourth satellite is scheduled to be launched

before the end of the year. Given that each satellite costs XM more than [], XM requires ready access to capital both to be prepared for foreseeable risks and to be able to rapidly respond to unforeseen circumstances. Therefore, XM must evaluate extremely carefully the potential impact of any major economic transaction or event on XM's access to capital and the cost of capital to XM.

Programming to Attract and Retain Subscribers

24. XM faces an ongoing challenge to convince potential and current subscribers of the value they receive in return for buying an XM radio and paying a monthly subscription fee. Consumers are bombarded with media offerings and with monthly subscription fees, such as newspapers and magazines, cable television service, video-on-demand, and online music and game services. XM's value proposition is based on innovative and diverse programming, commercial-free music channels, compelling exclusive programming such as live sports with a national reach and talk personalities, premium news and talk brands, traffic and weather, and nationwide coverage with high quality sound in the car, at home and on the go. We must appeal to a broad spectrum of consumers' passions -- reaching out to the many different categories of sports fans, news junkies and talk radio listeners, as well as music lovers whose interests are spread across a wide variety of genres. Exhibit 1 is a listing of our current channel line-up.

25. XM also must appeal to a broad range of demographics across different age groups and interests, and various cultural and political spectrums. We carry news, sports and music programming in Spanish. Our "XM Kids" channel appeals to children and their parents. For women, we recently launched the "Oprah and Friends" channel, in addition to our "Take Five" channel featuring talk programming from Ellen De Generes, Tyra Banks, Good Morning

America Radio, as well as programming produced specifically for XM. Exhibit 2 illustrates our content strategy.

26. We aim to provide a true mass market media service. To reach that mass market, we cannot offer only the most popular types of programming that anyone can hear on terrestrial AM and FM radio. XM has to succeed both by offering the most popular “mainstream” types of programming and by aggregating together different types of “niche” content (such as jazz, blues, and classical) that had been abandoned by local radio because it could not attract sufficient support from a local audience. However, it could reach a substantial passionate audience on a national scale.

27. To attract and acquire subscribers, XM needs to feature exclusive programming that consumers can only receive by subscribing to XM. This means that XM programming has to be differentiated from both AM and FM radio, and from Sirius Satellite Radio, as well as other audio entertainment services. For example, our acquisition of broadcast rights to all Major League Baseball games, World Cup soccer and college sports was important to XM in two ways. First, live sports appeals to new and existing subscribers with exclusive play-by-play content not available nationally on broadcast radio. Second, carrying major sporting events on an exclusive basis helps XM compete effectively against Sirius, which acquired broadcast rights to National Football League and National Basketball Association games.

28. XM carries talk and news television programming available on television but not on terrestrial radio, as well as five of the ten top talk radio talents, who are available on various terrestrial radio services. We use this news and talk programming to attract subscribers by offering a complete, compelling package of programming and to keep subscribers on the XM

platform for large portions of the time they spend listening to the radio. Fox News and CNN command significant fees because they are not available on terrestrial radio stations.

29. Talk radio personalities such as Glenn Beck and Art Bell are carried on XM because of their popularity, even though their programs are available in various markets from other outlets as well; but, because of this non-exclusive availability through other outlets, XM carries these programs for relatively modest fees.

30. Although XM offers a significantly greater number of non-music channels than Sirius, both Sirius and XM play a wide variety of music and musical genres, and have a similar number of commercial-free music channels. XM's distinctive offerings of commercial-free music serves as an important component of XM's platform. Being "commercial-free" helps differentiate XM from terrestrial radio in a way that consumers can immediately grasp, even without hearing the quality of how music is showcased on XM.

31. XM is much more than a jukebox. The music on XM is selected by music experts employed by XM, not by the Billboard sales charts. Our on-air personalities talk about the music, the musicians, and our life and times. Each of these music channels plays a much deeper and more diverse catalog of music than can be heard on terrestrial radio stations of the same format. And, XM plays many music genres and formats that cannot be heard on broadcast radio, even in major metropolitan areas.

32. We create unique music programming that showcases artists and gives insight into their approach to music. Examples include our Artist Confidential series, and programming produced for XM by legends such as Bob Dylan, Quincy Jones, Wynton Marsalis, and Tom Petty, folk favorites like Christine Lavin, hip-hop stars like Snoop Dogg and Ludacris, and new country artists like Jack Ingram. XM subscribers appreciate the differences in music

programming between XM and terrestrial radio -- the breadth and depth of XM's music offering, the special music programming produced by XM, the expertise and experience of XM's on-air talent, the insights into the music from the minds of the musicians themselves, and the extraordinarily deep knowledge of XM's music programmers.

Promotional Impact of Music Programming

33. XM provides significant promotional benefits for performing artists and record labels. Our commercial-free music channels provide a diversity of music programming that both appeals to a broad range of subscribers and allows a large variety of musical genres and performing artists to receive valuable exposure via airplay. Our expert programmers create a unique music experience for the listener. As just one example, our most popular music channel is "Willie's Place," produced by XM along with music legend/XM subscriber and enthusiast, Willie Nelson. "Willie's Place" is an audio environment, where our on-air personalities welcome the listener to an imaginary honky tonk bar, with classic country music pouring out of the nickel jukebox. Our "XM Kids" channel has helped build demand for music specifically for young children and their parents. XM's diversity and depth of content helps even the most popular musical artists. For example, despite his fame, Billy Joel could not get past the terrestrial radio gatekeepers and get airplay for his CD of classical compositions, entitled "Fantasies and Delusions." XM not only played the CD but also carried an interview with Mr. Joel, conducted by one of XM's classical music experts, Martin Goldsmith. The singer Sting recently was featured on an Artist Confidential performance of his new CD, "Labyrinth" of 16th century music for the lute and voice, which will receive very little exposure on any broadcast platform other than satellite radio. XM has many channels, including The Verge, XMU, 20 on

20, Raw, Watercolors, Hear Music, Fine Tuning, and Highway 16, that play music by new and emerging artists.

34. While we pride ourselves on our music diversity, not surprisingly XM's hit music channels are also very popular. Thirteen XM stations report to Billboard and/or Radio and Records magazine. As a result, support from XM has a significant impact on whether a record can reach Number 1 on the charts which, in turn, also has a direct impact on sales of recorded music. These relationships further exemplify XM's power as a tastemaker for recorded music, and as an important promotional vehicle for musicians and record labels. XM has received from a multitude of new and established artists and major and independent labels expressions of their appreciation for the positive impact that XM has had on their sales and their careers.

35. We believe that XM's promotional value results in a direct positive effect on sales of music. Virtually every record label sends us promotional recordings seeking airplay on XM. Artists, managers and record label promotional people contact and visit XM to help promote their records. Our programmers receive telephone calls and emails from recording artists, labels, and artist managers telling us about the positive effect that XM airplay has on sales of recordings and concert tickets. Our programming department gets "thank you's" from XM subscribers who learn about and buy new music that they heard on XM. Our internal surveys show that many subscribers buy music downloads and CD's after hearing a specific artist or song on XM. We are building additional strategic alliances to help promote music sales, such as our compilation CDs sold through Starbucks stores and our relationship with the new Napster online music store.

Future Challenges for XM

36. XM has achieved significant success over a relatively short period of time. In less than ten years, we have built a new broadcasting business from the ground up, and launched

reliable nationwide coverage. Less than five years after the national launch, XM has more than seven million subscribers. Our employees have been successful in making XM America's most popular satellite radio service. Indeed, according to Greystone Communications, as shown on Exhibit 3, consumers are adopting XM within a shorter period of time after launch than any consumer electronics product other than the DVD player. These are enormous accomplishments, but satellite radio is an industry still in its infancy, and many challenges remain for XM as a company. The primary near-term challenge is to build the consumer success of XM's satellite radio service into profitability for XM's satellite radio business.

37. To succeed, we must continue to substantially increase the number of XM subscribers. We must continuously convince consumers that the diversity and quality of the content XM offers is worth a continuing expenditure. This effort includes attracting new subscribers, converting trial subscriptions, and minimizing churn (the number of paying subscribers who discontinue their service). We must continue to acquire exclusive, and often expensive, high-value content that cannot be heard anywhere else but on XM. Our marketing partnerships continue to be key to exposing consumers to our service and adding customers. We must continue to innovate and introduce new products, such as our new portable radios which expand XM's reach beyond the car and outside the home. XM's recent portable XM2Go line of products have received awards and accolades from Popular Science magazine, CNET News, and the Consumer Electronics Show. Exhibit 4 includes announcements reflecting recognition of XM's innovative radio products. Finally, our technical capabilities must be first-rate, especially given increasing options for high-fidelity music. We constantly strive to improve transmission and reception, and to get the most channels and value out of our limited bandwidth.

38. In addition to the risks facing XM's early partners and investors, there are significant risks for later investors as well. Risks for later investors in XM include the impact on XM of its past obligations, potential changes in the industry, and uncertainties as to whether XM will be able to expand and retain its subscriber base at a sufficient rate to support XM's ongoing operations and obligations. [

] If this trend continues, eventually XM will be profitable per subscriber. Our past projections were that we would have a profit per subscription once we hit four million subscribers and be cash flow positive at the end of 2005, at which point we would have five and a half million subscribers. Currently, analysts project XM to be cash flow positive at some point in 2007, to attain positive EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) in 2008, and to reach profitability in 2010. There is uncertainty whether consumer willingness to pay for the end product is sufficient to compensate everyone in the value chain and still leave a reasonable profit for XM's shareholders.

39. The answer is not simply to charge the customer more. Pricing consumer subscriptions is a balancing act. At our current new subscriber rate of \$12.95 per month, we have a strong potential to be included in a substantial percentage of new cars. In our view, this approach has the greatest long-term attractiveness to our business partners, the best potential return for our shareholders, and will result in a large and growing subscriber base to XM services. [

] XM faces competition from a number of existing services, as well as services that are anticipated to grow significantly over the next several years, and these services may constrain XM's ability to increase subscription rates. For example, FM stations that currently

compete against XM increasingly are rolling out HD Radio digital channels that consumers can receive without additional charge. These digital HD Radio stations may feature music programming in niche formats (like WAMU-FM's "Bluegrass Country" HD Radio channel), that compete directly against XM channels. Unlike XM, HD Radio stations do not have to pay royalty fees to the sound recording owners (the record labels) for those music channels, and their programming will not be restricted by the license conditions imposed on XM (for example, the sound recording performance complement, which restricts the frequency with which XM can play certain artists or songs). The large cellular carriers already offer streaming music services over cell phones, often at significantly lower monthly service charges than XM, and new technologies being deployed will deliver rich multi-media (including video and music) over upgraded cellular and broadband Wi-Fi and Wi-Max networks, which will also fuel additional competition to satellite radio. The impact of such services on the popularity of satellite radio and on our ability to maintain our current monthly subscription fee is difficult to project.

Potential Impact of Royalty Rate Proceeding on XM's Business

40. Our understanding is that satellite radio services pay more to SoundExchange than all other statutory licensees combined -- even though our primary competitor, terrestrial radio, is exempt from such payments and pays absolutely nothing for performing sound recordings. The rate that XM proposes in this proceeding is .88% of XM's gross revenue. If our subscriptions and revenues increase over the next several years as analysts expect, this rate will result in very substantial increases in payments to copyright owners and performing artists, projected to be in excess of \$100 million over the license period.

41. However, XM's ability to achieve analysts' revenue projections, and therefore to be able to pay that compensation, depends upon many key factors and assumptions that all must

fall into place. Under our proposed rate, XM believes it still should be able to attain its reasonable financial objectives. One of those key factors for XM and its investors is the rate that will be set in this proceeding. [

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42. XM makes substantial payments for exclusive content that can only be heard on XM. National coverage of live sports, such as MLB, and the Oprah & Friends channel are examples of exclusive content offerings that distinguish XM from both terrestrial radio and other competitors. Exclusive content also presents XM with important additional revenue opportunities, since it gives XM an opportunity to sell advertising time. For such exclusive content, XM has been willing to pay a substantial fee.

43. While music is an important element of XM's overall channel offerings, all of our competitors have equal access to the same library of music. Any broadcaster and webcaster can play the same CDs that XM plays. A non-exclusive sound recordings license does not, by itself, differentiate XM from the many competitors that also have that license, or from terrestrial broadcasters that are exempt from that license requirement. We could not successfully define XM as a service worth paying for if XM merely replicated the same type of listening experience one can get from terrestrial radio or internet webcasting.

44. What makes XM's music channels unique is how XM uses the library, music programming staff, and our special programming to create the personality of the XM service. XM special programming – including concerts, music specials, themed programming, music surveys, artists as disc jockeys, and so on – create the sound of XM and the attraction for subscribers of XM's music programming. XM dedicates very substantial effort and expense to programming and production on our music channels, to present the music in a proper context and character. It is the skill behind XM music programming that makes XM music programming attractive to its subscribers. But that value exists because of what XM contributes; it does not flow merely from a license to sound recordings.

45. Moreover, a high royalty would be unfair to XM in light of the fact that XM's major competitors in broadcast radio do not pay any royalties whatsoever to sound recording labels or performers. This is true certainly for FM radio, but is also true for digital "HD Radio" going forward into the future even though HD Radio is a digital service and was designed to provide many of the same consumer advantages as satellite radio. As noted above, as free HD Radio becomes more available and more popular, the challenge to attract paying subscribers to satellite radio will become that much tougher. A high royalty in this proceeding would further unfairly tilt the playing field in favor of terrestrial broadcasting, and could further distort competition in the radio industry.

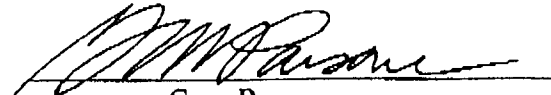
46. Finally, a high royalty would chill investment in innovative technologies like XM. Every technology from the phonograph to FM radio to CDs to satellite radio has created new promotional and revenue opportunities for musicians and recording companies, but they also have generated significant benefits to the public and the spread of art and culture. Bringing culture, news and information to our citizens depends on the availability of new media

technology. The rate we propose in this proceeding would be consistent with public policies favoring innovation and encouraging investment in new technologies and media.

Certification

I declare under penalty of perjury that the foregoing is true and correct.

Dated: Washington, DC
October 30, 2006



Gary Parsons

Chairman of the Board
of Directors, XM Satellite Radio Inc.

2. Masiello

PUBLIC VERSION

**Before the
LIBRARY OF CONGRESS
Copyright Royalty Board**

In the Matter of)	
)	
Adjustment of Rates and Terms for)	
Preexisting Subscription and)	Docket No. 2006-1 CRB DSTRA
Satellite Digital Audio Radio Services)	
_____)	

**DIRECT TESTIMONY OF ANTHONY J. MASIELLO
(ON BEHALF OF XM SATELLITE RADIO INC.)**

1. My name is Anthony J. Masiello. I am currently employed by XM Satellite Radio Inc. ("XM") as Senior Vice President of Operations. I have been employed by XM in that capacity since 1999. My responsibilities at XM encompass all technical aspects of our broadcast operation, including our broadcast signal, broadcast studios, transmission equipment, network operations and radio receivers.

2. My testimony will discuss, from a technological standpoint, the enormous effort and expense required to develop and launch the XM service, the ongoing efforts and expense of our operations, and our continuing commitment to innovation. This effort is unparalleled in the radio industry. Not since the introduction of FM broadcasting has an audio broadcasting service had to design, build and launch, virtually from scratch, all aspects of its service infrastructure from signal to receiver. But, unlike today's FM radio broadcasters, satellite radio had to pay for the spectrum, as well as design and build satellites and receivers in order to deliver their service to the public.

3. Each stage of this effort was undertaken with great care to deliver the best possible sound and a diverse array of program and data services using a finite amount of bandwidth. As a result of these efforts, XM has opened new technological avenues in the broadcasting field -- creating the world's largest state-of-the-art digital broadcast studio complex, which feeds more channels of audio with better sound quality, and new data services, to increasingly smaller car, home and portable radio receivers. Perhaps only the evolution of satellite television from a service utilizing expensive, large dishes as receivers to easy-to-install DBS service is comparable. XM, however, achieved this in just a few years, with much more compact equipment, and in a much more demanding mobile vehicle transmission environment.

Industry Experience Prior to Joining XM

4. I have more than 35 years of relevant experience in broadcast operations, starting with a position at Fordham University's WFUV-FM in 1968. At WFUV, I operated and maintained the transmitter facilities as part of a work-study assignment. I also took courses in basic broadcast signals and electronics, computer science, and tube design, and obtained my FCC First Class license to operate and maintain broadcast facilities. In 1971, I was employed by ABC Radio Networks, where I was assigned to the radio network division and began doing field and studio technical work. By 1977, I was manager of broadcast services for ABC Radio. My responsibilities included station interconnects to the network, and setting up remote broadcasts for major news and sporting events such as political conventions and the Olympics. Initially, the network operated over analog AT&T land lines. In 1979, toward the end of my tenure at ABC, the network was making the transition to use of digital broadcast satellites. On the management side, I was the team member receiving and reviewing bids on how to link to our affiliates to the

ABC Radio network via satellite, and we conducted numerous audio tests to evaluate the sonic quality of satellite digital radio transmissions.

5. In 1980, I became Director of Operations and Engineering for Enterprise Radio, a start-up 24 hour sports talk service. In 1982, I became the Vice President of Engineering for Dick Clark Productions' United Stations. I built the studios and satellite transmission infrastructure for the company, a 24-hour broadcaster and syndicator of programming to radio stations, including shows such as Dick Clark's "Top 40" countdown.

6. In 1984, I became Vice President of Engineering at Meadowlands Communications. The company built systems for satellite transmission at stadiums, all in digital format. We handled all of the 1984 Los Angeles Olympic coverage. We also handled news coverage, interconnecting with local audio/video lines and then uplinking the signal for distribution. In 1986, I became an industry consultant. For one of my clients, based in Homdel, New Jersey, I developed a business plan to deliver commercials to stations via satellite (as opposed to shipping physical tapes).

7. I joined CBS Radio Networks in 1988 as the Director of Technical Operations, and was later promoted to Vice President, Technical Operations. In these roles, I had responsibility for all the technical and engineering aspects of CBS's AM and FM owned and operated stations, as well as the CBS radio network programming delivered to affiliate stations. My work included designing facilities and building studios for broadcasting. I led cutting-edge technology efforts at CBS in which I developed substantial expertise in the processing of digital audio signals, and in "audio compression" technology that could reduce the amount of digital information in a broadcast transmission signal yet still produce clear digital sound quality. I also developed a second area of expertise concerning digital audio broadcasting by terrestrial radio

broadcast services. I studied the European Digital Audio Broadcasting system, and worked on early in-band on channel digital audio transmission systems (a technological standard that provides a method for transmitting near-CD quality audio signals to radio receivers along with new data services such as station, song and artist identification, stock and news information, as well as local traffic and weather bulletins). I also participated in founding a company known as USA Digital, which later became iBiquity – the company that created the terrestrial broadcast signal technology used in HD Radio in the United States.

My Role at XM

8. In 1999, I was recruited by XM. When I joined the company as Vice President of Broadcast Operations, XM had little more than an FCC license and satellite designs. There were no studios, no chipset technology and no satellites had been launched. The owners of what would become XM had invested \$90 million dollars in an FCC license on the assumption that the right team of people would be willing to come to XM to design and build the entire technology and operating infrastructure needed for the successful launch of the audio service, a service that competes with AM/FM radio, which people traditionally used for free. The satellites needed to be built to XM's specifications, insured and launched. Likewise, a network of terrestrial repeaters had to be constructed so that the XM signal could be heard coast to coast with little interference or interruption. Signaling protocols, integrated circuits, chipsets and radios had to be developed from scratch. An entire broadcast operations center needed to be created, including studios for production and transmission of programming.

9. My job was to oversee the design and build out of XM's broadcast infrastructure. This was an enormous technological challenge. However, I thought it could be accomplished, and was fairly confident that consumers would pay for radio as they did for cable television

service. I was enthusiastic about the opportunity, and left a conventional and secure broadcasting job to move to Washington and help start XM.

10. My primary responsibilities include oversight of all technical aspects of XM's operation through to the uplink to the satellite. My department includes about 70 technical operations employees at our Washington, D.C. facilities. Another 75-100 technical employees reside at our Florida technical development location (known as the "Innovation Center"). Since I started at XM, I have recruited top tier people with the ability to think "outside the box," which was necessary when launching a new technology service. On the satellite side, we hired people who had worked at RCA Americom (now SES Americom), a pioneering communications satellite firm. Patent holders and innovators who previously worked at Motorola, Inc. make up part of the staff in Florida.

XM's Facilities and Technology

11. In our D.C. facility, XM built the largest digital broadcast studio complex under one roof, using state-of-the-art digital production and broadcast technology. All of the 82 studios in that facility, including dedicated production studios, are able to go live on-air. By way of comparison, at the time that I worked for CBS, CBS radio network had only 10-11 studios. In addition to being the largest digital complex, I believe XM has one of the largest radio studio complexes of any type, analog or digital, in the western hemisphere. Only the BBC can rival the number of distinct studios under one roof. Masiello Exhibit 1 is the floorplan of our D.C. studio complex.

12. To accommodate air talent in other parts of the country, we have three studios in New York City, including one at Jazz at Lincoln Center; one in Nashville, Tennessee; and one in Chicago (used in conjunction with Oprah Winfrey's Harpo Productions). We lease the space at

Jazz at Lincoln Center, have built studios and own all of our broadcasting equipment. Likewise, in Nashville, our studio is at the Country Music Hall of Fame, but we built out the studio and provided the equipment. At the other two locations in New York, we lease the space but have built the studios to our own specifications and supplied all equipment. The Chicago studio is owned and operated by XM and was built in conjunction with Harpo Radio, Inc. as part of the agreement to create the Oprah & Friends channel on XM. In addition to the effort and expense involved in building these state-of-the-art studios, XM must maintain the equipment, create the technological link to the XM's main broadcast center, and staff the space with skilled personnel. Masiello Exhibit 2 is a photograph of our Jazz at Lincoln Center studio. Masiello Exhibit 3 is a photograph of our Nashville studio. Masiello Exhibit 4 is a photograph of our Chicago studio.

13. Our Washington, D.C. facilities include our broadcast, network and technical operations centers. Broadcast operations consists of the studio and technical facilities that enable our programmers to generate the content aired on XM. Broadcast operations prepares and stores content and makes content available for broadcast to subscribers. XM uses the "Dalet" music scheduling software for this purpose because it can be customized to fit our needs, which include running over 20 custom applications and handling an enormous amount of stored data. Masiello Exhibit 5 is a photograph of our D.C. broadcast center.

14. Network operations runs the network and the satellite uplink. It is the control center that supervises operation of the satellite network and the terrestrial repeater network. The company also has a back-up uplink site in an undisclosed location. Masiello Exhibit 6 is a photograph of our D.C. control center.

15. Technical operations provides support for all of XM's departments. We support all aspects of the studio and broadcast operation, and the uplink to the satellite. We monitor IT

operations (the servers, switches, and local area networks), but do not offer general IT support to XM desktop PC users.

16. Costs of broadcast operations were [] for 2005. These include costs associated with the management and maintenance of systems and facilities, production and performance studios used in the creation and distribution of XM-original and third party content via satellite broadcast, and web and other new distribution platforms. I now turn to a more detailed account of the development of XM from a technological perspective.

Initial Design

17. Contracting for the first and second satellite was completed by March 1998, and some work was done on XM's system technology during 1998. Most of the design and development process took more than three years prior to the launch of the XM service. The process encompassed the design of the XM signaling protocols, the design, manufacture and launch of the satellites, the design and construction of XM's broadcast and operations facilities, the design and manufacture of the terrestrial repeater network, the design and development of XM's chipset and the design and manufacture of the XM radio receivers. The satellites had to be specially designed for XM. The steps I describe below basically needed to occur in sequence.

18. The first and most critical step toward XM's launch was to develop the technical specifications (or "waveform") for the signals that transport the XM broadcast content from the studio to the XM radios. Many fundamental and difficult decisions had to be carefully made in developing these specifications. All these decisions had to be made correctly from the start. The audio signal protocols could not be changed once the service launched, because any such changes to the signal would make the signal incompatible with radios already in the field. Some of these critical design decisions were:

-- Because all XM subscribers receive exactly the same broadcast signal, the signal design had to take into account variations in listeners' locations and the demands of transmitting signals to moving vehicles and portable receivers.

-- The system had to be robust enough to uplink to the satellite and be received clearly by subscribers.

-- We had to select a secure encryption method that could guard against theft of the XM service, without imposing severe processing obligations on the receivers that would have to decrypt the signal.

-- The key question was how to manage the trade-off between the sound quality of each channel and the total number of channels that XM could broadcast. Better sound quality requires greater bandwidth, and the amount of total available bandwidth was a finite commodity allocated to us by the FCC. Therefore, one of the most important initial decisions was to test various compression technologies, and license the most efficient algorithm for broadcasting. To further maximize sound quality, XM also licensed from Neural Audio a processing technology customized for XM that would deliver a high quality, optimized stereo image to the consumer, while reducing the amount of data XM must transmit per channel. The distinctive "sound of XM" relates directly back to this decision. Two independent tests conducted in 2002 concluded that the XM signal yielded superior satellite radio sound quality. We were able to launch the service in 2001 with 100 digital channels and today we offer more than 170 channels of talk, music, and other entertainment on the XM service.

Satellite and Uplink Design and Launch

19. Another fundamental question that we needed to address when I joined XM was how to ensure the best possible reception of the satellite-delivered signal. XM has three

enormous challenges: delivering a signal to moving vehicles; delivering a signal in urban areas where a satellite may not have the necessary line of sight with the receiver; and ensuring complete, nationwide coverage. Because consumers long have experienced interference in receiving FM stations, and loss of signal when traveling out of the range of the station's antenna, XM had to provide outstanding nationwide coverage in order to convince consumers to pay for an XM subscription.

20. The entire XM transmission system consists of satellite uplink dishes that send the XM signal to several geostationary satellites, which in turn re-transmit the signals to the United States; and a network of approximately 800 terrestrial repeaters, located in the top broadcast markets, which receive and re-transmit the satellite signals in places where the direct satellite signal might otherwise be obstructed by tall buildings, mountains, or tunnels. These repeaters are installed on rooftops or existing tower structures. They receive the XM signal from one of the satellites, amplify it and retransmit it at higher signal strength to overcome any obstructions. Masiello Exhibit 7 is a photograph of one of XM's satellites. Masiello Exhibit 8 is a photograph of one of XM's repeaters.

21. Our system, which was initially designed entirely on paper, included repeaters from the outset. We launched commercial service only when a sufficient repeater network was in place so a consumer could drive from coast to coast through dense urban and wide open areas and never lose the XM service. XM had to participate in the design of the repeaters, as satellite radio was the first (and remains the only) satellite based service that uses S-band repeaters this extensively. We also had to determine proper placement of the repeaters, and take into account the degree of overlap needed and the chance that repeaters may cause interference with one another, as they all share the same frequency band.

22. After the “on paper” phase of this signal design was complete, the transmission system had to be tested in the field before we launched our satellites. Our testing included simulations where test XM transmitters were “launched” in helicopters, and the signal was received on pre-prototype XM satellite radio receiver boxes.

23. We next had to design and map out the basic elements of the satellite system including the physical uplink, the construction of the satellites, and the actual launch. This effort was enormously expensive, at a cost of [

] Hughes (now part of the Boeing Company) constructed the satellites, which includes the basic satellite infrastructure. Alcatel provided the communications payload elements of the satellites that are particular to the transmission of XM and were designed specifically to handle our application. Each of the satellites was launched by rocket from the sea. The Sea Launch consortium handled the launch for XM. Sea Launch was a new satellite launch service at the time, having successfully launched only a handful of satellites before sending XM’s first satellite into orbit. Launching satellites is inherently a risky endeavor, even for the most experienced launch companies, and therefore insurance is required costing alone per satellite were over [].

24. To enable nationwide reception and the technology necessary for a viable satellite radio service, XM had to launch its own satellites built to its own power and other specifications. Thus, XM did not have the option of merely renting time on another company’s satellite. Commercial communications satellites generally transmit low-power signals that can be received by dishes of various sizes, from the relatively small dishes that feed DBS such as DirecTV or Echostar to commercial dishes several feet in diameter. But cars cannot drive around even with the small parabolic dish antennas that focus and amplify a low-power signal. The need to

purchase and install dishes would also limit the appeal for home use, and would rule out any reasonable opportunity to develop portable and personal radios. Moreover, because the signal must be delivered to moving vehicles, this signal must be omnidirectional, rather than narrowly targeted to specific stationary receiving dishes. Therefore, to be successful, XM needed satellites capable of blanketing the country with an extremely high power signal that could be received by a very small antenna mounted on the roof of a car, or situated in a consumer's home, or embedded in a hand-held portable device.

25. We planned the launch of two geostationary satellites located at widely spaced orbital positions (85°W and 115°W) covering the entire 48 contiguous states with overlapping footprints. Each satellite alone covers the entire 48 contiguous states. (We named these satellites "Rock" and "Roll.") Each satellite has two transponders that transmit across different frequencies. The purpose of having multiple satellites and transponders is to ensure that if a subscriber's receiver were to lose contact with one satellite, it could quickly pick up the signal from another satellite. The different positioning of the two satellites in space provides for "Space Diversity" making satellite reception robust. In addition to space diversity, XM's waveform also employs "Time Diversity" which buffers 4 seconds of all signals (from the satellites and terrestrial repeaters) in the radio receivers eliminating "drop outs" when the vehicles travel into small tunnels and/or highway underpasses.

26. We have launched a third satellite, named "Rhythm," in February 2005 and will launch a fourth satellite, named "Blues," sometime in 2006. We had to launch additional replacement satellites, only four to five years from our initial service launch, due to the unexpected rapid deterioration of the transmission power of the two original satellites. This was

the result of a manufacturer's defect in the satellite's solar power system which was discovered shortly after the satellites were launched into space.

27. The "uplink" side of XM is the transmission of broadcast signals from large (7-meter wide) parabolic satellite dishes located at XM's facilities to the satellites, which then beam back down to subscribers' radios and the terrestrial repeaters. In case of technical interruptions, XM also has a redundant uplink facility in an undisclosed location. Masiello Exhibit 9 is a photograph of XM's parabolic satellite dishes used in our uplinks.

28. The uplink system that prepares the signal and transmits it to the satellites had to be developed from scratch. The uplink system first compresses the 170 channels of audio and the non-audio data channels and builds them into a single encrypted XM signal. That "multiplexed" signal then is modulated onto a carrier frequency, and is fed to the satellite dishes which amplify the signal for transmission to the satellites. The uplink system also includes the business authorization system. This is part of the broadcast signal that transmits commands that "turn on" each individual subscriber's radio when a consumer activates a new subscription account.

29. For urban areas, where the satellite signals could be blocked by tall buildings, we needed to design and install a network of signal terrestrial repeaters on the ground that would receive the satellite signal and retransmit that signal to fill in the gaps in coverage. These repeaters had to be designed to operate on a different signal frequency and use a different modulation method than the satellites. This optimizes propagation of the signal, and avoids interference with the satellite signal. As noted above, our approximately 800 terrestrial repeaters are a central part of the XM system architecture, and contain some custom-built components. XM obtained a separate FCC authorization for these repeaters. That authorization was granted

on an interim basis in 2001. Creating our repeater network is not just a one-time investment, since we have to maintain the repeaters on a continuous basis. Subject to FCC approval, we are also planning to add repeaters during the next 1-2 years, and on an ongoing basis, to replace existing repeaters to further enhance the integrity of our signal reception. For 2005 alone, XM's costs relating to its satellites and terrestrial repeater network was [].

Progression of Radio Receivers

30. All XM radios perform the same essential functions. They receive the signal from the XM satellites and repeaters. They then amplify the signal, de-modulate the digital signal from the carrier frequency, separate (or “de-multiplex”) the single signal into channels that can individually be tuned, then tune in each individual channel. These radios are capable of receiving and processing the XM signal from XM satellites and from terrestrial repeaters. These radios are one-way receivers that send no information back to the satellite. For that reason, XM has no technological way to know whether or how long a particular XM radio is on, or what any subscriber is listening to.

31. XM itself designed all aspects of the radios used to receive the XM signal. These XM radios have several key components. The first, most fundamental, element is the chipset, which provides the “brains” of the radio devices subscribers use to receive the XM signal. It has evolved substantially over the years to become more capable, sophisticated and complex, yet significantly smaller and lower cost than the first generation chips. Our own engineers at XM's Deerfield Beach, Florida facility designed the radio, including proprietary chipsets. Although it was more expensive to do it this way, XM reaped a tremendous competitive benefit by retaining control over all aspects of the design process and understanding how all of the technological

elements came together. Once the chipset was developed, we sent it to outside manufacturers to mass produce.

32. The second element is the “XM stack” – the software the radios use to control the radio hardware, tune individual channels, and display information to the user. All display functions, including the information displayed about a song as it is played on XM and data-only displays, such as scrolling stock prices and sports scores, are controlled by the stack. The XM stack also incorporates complex algorithms resulting in a robust signal reception in “difficult” terrestrial environments (areas with high terrain and multiple building reflections).

33. The third element is the antenna to receive the XM signal. All XM antennas must be electrically powered to receive the signal from the XM satellites and the terrestrial repeaters, and then to amplify the signal. A major radio design milestone was the reduction of the size of the antenna, which has led to development of portable receivers similar in size to a cell phone (which I discuss below).

34. Through dedicated development efforts, we have evolved these three elements substantially over time to provide additional functionality in a much smaller form factor, while remaining compatible with the same XM signals that still work in the very first generation of radios.

35. The first XM radio receivers available for consumers were after-market units designed for use only in vehicles, and were produced by Pioneer and Alpine. To install these units, the old car radios had to be replaced with the new XM unit. The XM radios consisted of two pieces. One was a very large (about 6” by 9”) black box unit that was installed in an automobile’s trunk. The other part was a head unit installed in the dashboard, which allowed for tuning to different XM channels. A separate antenna for satellite and repeater reception that

looked like a shark fin was installed on the roof of the car. Masiello Exhibits 10 and 11 show an early radio and antenna.

36. Sony was the first manufacturer to come out with the first generation “Plug and Play” XM radio, with a chipset designed by XM, which enabled subscribers to add XM radio to their existing car audio system using an adapter unit rather than replacing the existing car radio. Masiello Exhibit 12 is a photograph of a first generation “Plug and Play” radio.

37. The constant reduction in chipset size led to the next generation “Plug and Play” radio, the “SKYFi,” a unit that could be powered by an AC adaptor or batteries, allowing subscribers to experience XM in the car, at home or virtually any location. The SKYFi was designed entirely by our Florida engineers and branded by Delphi. Masiello Exhibit 13 is a photograph of a SKYFi radio.

38. The chipset continued to shrink, allowing for production of the smaller “Roady” series. In 2005, XM introduced the first portable “XM2Go” receiver radios that subscribers could use either to receive live XM signals (like a portable transistor radio) or to record 5 hours of XM to enjoy in locations where XM signals cannot reach (such as in an office, the gym or on an airplane). The technological breakthrough with these “XM2Go” devices was a reduction in chip size and power consumption and development of an integrated antenna without losing signal quality in outdoor environments. Masiello Exhibits 14 and 15 show an XM2Go and MyFi (with integrated antenna) radios.

39. Following the introduction of radios in the retail or automotive after-market channel, XM began working with automotive partners to include XM radio as a factory installed option in new cars. GM began to offer XM radio as original equipment in certain new Cadillacs in late 2001 and expanded its offering to other vehicle makers in subsequent years.

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40. In less than five years, XM not only released the first satellite radio receivers, we reduced the size of the entire radio – including the chipset and antenna – to a device that could fit in the palm of a subscriber’s hand.

41. Hardware innovations continue at a fast pace. Just this year, XM introduced two new devices. One is the “Mini-tuner,” which is a matchbook sized XM radio receiver unit that a consumer can snap into a specially-equipped car unit or home stereo. The second is our new series of smaller, more attractive XM2Go devices. Known as the “inno” by Pioneer and the “Helix” by Samsung, these devices can receive live XM radio, record XM channels or programming (like a TiVo or VCR), and store sound files from the subscriber’s own collection (such as from the Napster online music service or from the subscriber’s own PC). Masiello Exhibit 16 is a photograph of an XM mini-tuner. Masiello Exhibit 17 is a photograph of an inno radio.

42. Another innovation by XM is the delivery of audio channels in “surround sound,” that can be enjoyed on home theater systems manufactured by consumer electronics manufacturers such as Yamaha, Pioneer, Onkyo, Denon, and Sony. At present, the XM Classical “Pops” channel and XM’s “Fine Tuning” are encoded for surround sound.

43. XM’s research and development efforts are extremely costly. For example, costs of research and development were [] for 2005. But innovation is essential to help make the XM service more ubiquitously available to consumers, as well as to drive down costs of the hardware. To penetrate the mass market rapidly, radios had to evolve from bulky, expensive devices to a range of price points, including small, \$30-50 units that could easily be used in a car or home stereo system.

XM's Data Services

44. The XM service also includes transmission of data, some of which is broadcast on non-audio data channels. For example, data concerning channel identification, program content and/or song information is sent for each channel. All of this information is sent on a Broadcast Information Channel separate from the audio channels themselves. Other data also enables textual and graphic features (such as channel names and logo designs) on XM radios or display of sports scores and stock prices.

45. XM's local traffic, weather, and emergency alert service provides audio channels dedicated to 21 metropolitan areas, covering 177 million people, just over 50% of the total population of the United States. The traffic data is provided by traffic.com, which is a service that uses traffic sensors on roadways, coupled with state and local Department of Transportation data, to create a database that in turn provides usable information to XM. Weather data is provided by The Weather Channel, which has a dedicated website that XM may access. Emergency alert information is provided by a number of government sources, as well as broadcast and cable news networks. XM employees create the audio broadcasts for each of these channels from our studios utilizing this third party data.

46. We also provide "XM WX Satellite Weather," an aviation and marine service. This data provides real-time graphical weather data, including NEXRAD radar, temperature, windspeed, and other information in plane cockpits. It has been adopted as the leading cockpit weather solution for the aviation industry, and is now a built-in feature on over 80% of new general aviation planes sold in the U.S. Baron Services provides the weather data to XM for broadcast. Masiello Exhibit 18 is a page from the XM website describing the XM WX Satellite

Weather service. This service is only possible because of the extensive capabilities of the XM broadcast system to deliver real-time data to an aircraft while in flight.

47. XM's "NavTraffic" service provides real-time traffic updates to a vehicle's on-board GPS navigation system. The service, which launched in October 2004, is now available in 44 metropolitan areas. Honda, GM, Toyota, and Nissan offer vehicles equipped with suitable GPS navigation systems to receive the NavTraffic service and leading manufacturers of aftermarket navigation systems, including Garmin, Pioneer, and Alpine, offer devices which also use the service. The data for the NavTraffic service is provided by Navteq, a provider of digital map data for vehicle navigation systems. Navteq gathers traffic data from multiple government and commercial sources and transmits the data to XM in a codified form that is relevant to a map-based display. Masiello Exhibit 19 is a page from the XM website describing the XM NavTraffic service.

48. Automotive telematics, which include data services such as "NavTraffic" that can interact with GPS systems, were envisioned by XM at the outset of developing XM's service. Other automotive telematics services now in development or in limited use include sending an overlay of weather information onto maps showing traffic information; information from Zagat on restaurants located close to the subscriber's vehicle; and [

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49. The Zagat restaurant data is the result of a partnership with Honda, and is available in certain Honda and Acura vehicles. With this service, XM does not provide the data content itself, but acts as a pipeline to the carmaker's vehicles.

50. XM's far-reaching, reliable coverage uniquely positions XM to provide vital emergency assistance to communities in need; terrestrial disasters may devastate other

communication services but not affect XM's satellite-based communication. When Florida was devastated by hurricanes in September 2004, XM launched XM Emergency Alert Channel 247, which is dedicated to providing critical information after natural disasters and other emergencies. We make this service available to emergency responders with XM radios, without any subscription. In the aftermath of Hurricane Katrina, XM was able to broadcast to the affected areas, while traditional radio and television stations were knocked off the air for an extended period of time. XM established another free service during Katrina, the Red Cross Radio channel, which reached workers and aid stations in the Gulf Coast region. XM donated 300 radios during this crisis to quickly disseminate critical emergency news and aid information.

51. This commitment to public service led to the development of an alert feature that tells the user that important safety, weather or traffic information is being transmitted on another XM channel. [

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Future and Continuing Technology Investments for XM

52. As discussed above, XM is continually innovating to make its service and radios attractive and more affordable to subscribers and partners. I expect such innovation to continue at an accelerated pace over the next five years so XM can remain competitive in the ever-changing consumer electronics and audio entertainment industries.

53. In addition to developing new features and hardware, XM must perform ongoing maintenance so that our infrastructure remains sound and there is no drop-off in the quality and coverage of XM's signal. This maintenance must be done on all of the systems I have described above, including some that I will highlight below.

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54. Our fourth satellite will be launched later this year, and work is underway on our fifth satellite, which is being built by Loral. This satellite is being built as a ground spare. Our network operations department will continue to monitor the first two satellites, which will be powered down but kept as in-orbit spares.

55. Our network of terrestrial repeaters must also be maintained and expanded. As elements of these repeaters reach the end of their useful life, they must be replaced. Leases for repeater sites need to be renegotiated periodically. Subject to FCC approval, we also will add new repeaters to the network over the next five years to improve signal coverage.

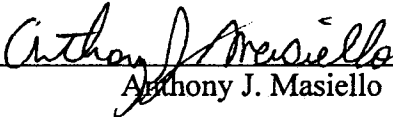
56. [

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Certification

I declare under penalty of perjury that the foregoing is true and correct.

Dated: Washington, DC
October 30, 2006



Anthony J. Masiello

Senior Vice President of Operations,
XM Satellite Radio Inc.

3. Logan

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DIRECT TESTIMONY OF ERIC LOGAN
(ON BEHALF OF XM SATELLITE RADIO INC.)

1. My name is Eric Logan. I am currently employed by XM Satellite Radio Inc. ("XM") as Executive Vice President of Programming, a position I have held since August 2004. In this capacity, I am responsible for programming and strategy for all of the more than 170 channels on the XM radio service.

2. My testimony primarily will discuss XM's program offerings, and explain how and why XM programs its channels to provide a diverse, unique and compelling program service that will convince consumers to become and remain XM subscribers. To summarize several of my key points:

-- The fundamental value proposition of XM is built on (1) aggregating onto a single platform a diverse variety of programming that will appeal to almost every interest; (2) exclusive programming such as sports and talk; (3) brand-name news and talk programming; (4) XM's unique approach to music programming; and (5) XM's decision to forego advertising revenue on its music channels.

-- Presenting a diverse line-up of programming to potential and current XM subscribers, including news, sports, talk, comedy, and commercial-free music channels, promotes subscriber acquisition and retention, and grows subscriber satisfaction.

-- The non-music channels on XM include exclusive content such as Major League Baseball, Oprah & Friends, National Hockey League (which will be exclusive to XM starting next season) and NCAA college football and basketball from select conferences. These channels also include high-brand recognition content like Fox News, ESPN and CNN, and also play a major role in promoting subscriber acquisition.

-- XM doesn't just "play music" on its music channels. XM creates its music channels with a special character and personality created by expert music programmers and on-air talent. XM also produces exclusive music programming that adds value for XM subscribers, the performers and recording labels.

-- XM's approach to music programming in turn creates powerful promotional value to musical artists and recording labels. Both established and up-and-coming musicians get valuable exposure from the different avenues in which XM presents their music. This power of XM to promote sales has been acknowledged by the artists and recording labels themselves.

Radio Industry Experience Prior to Joining XM

3. I have twenty years of experience working at radio stations and radio station groups, starting in entry level jobs, to turning around a station in the third largest media market in the United States, to working as a senior executive for major AM/FM radio conglomerates. I have held jobs in almost every area in the radio business – sales, tech, on-air, programming and management.

4. I started my radio career in the late 1980's at country stations in Oklahoma City. Starting in 1994, I went on to hold programming positions in Seattle and in San Francisco. In Seattle in July 1994, I relaunched the station formerly known as KXRX-FM with a new, "Young Country" music format, and changed its call letters to KYCW-FM. The station quickly overtook the second-rated competitor. As program director of KYCY-FM in San Francisco in 1995, I diversified the station beyond its country format. Additions to the programming included broadcasts of Oakland Raiders football games. The station's ratings and popularity jumped to overtake our closest competitor in the country format, and ultimately to force that competitor to change its format.

5. The positions in Seattle and San Francisco led to a job based in Tampa, Florida, where I programmed a cluster of CBS-owned stations in 1997-98. In Tampa, I also renegotiated our deal to broadcast NFL football games. This in turn led to my first corporate position, where I had the responsibility of overseeing country music programming on CBS stations across the country, including stations in Houston, Chicago and Kansas City. In 2002, I became Manager of Operations at WUSN-FM, known as "U.S. 99," in Chicago. Responding to the changes to our society brought about by 9/11, I relaunched WUSN-FM as "America's Country Station," combining new country music with other popular music that connected listeners with a new, stronger sense of pride and patriotism. These changes brought WUSN literally from "worst to first" in the Chicago market broadcast ratings in record time.

6. The last several stations I programmed were owned by Infinity/CBS Broadcasting Corporation, one of the largest owners and operators of radio stations in the United States. In 2003, Infinity/CBS promoted me to Vice President of Programming and moved me to New York, where my duties included responsibility for the day to day operations of all of Infinity's

New York City stations. I then went to Citadel Broadcasting for a year, where as President of Programming I was responsible for more than 150 radio stations in over 40 markets.

7. In July 2004, when I was approached to join XM Satellite Radio, I had already been immersed in programming of commercial radio stations for a decade.

8. Beginning November 7, 2006, I will be returning as a member of the Board of Directors of the Country Music Association.

Programming Role and Staff at XM

9. In my capacity as XM's Executive Vice President of Programming, I am responsible for every piece of audio (and accompanying data) broadcast on XM. In the broadest sense, I am responsible for the strategic creative management of XM's bandwidth. Bandwidth -- the finite portion of the broadcast spectrum allocated to XM under its FCC license -- is XM's principal commodity. Not all channels use bandwidth equally. Talk channels can be broadcast using less bandwidth, such that, generally speaking, [

] Even among the music channels, certain types of music are more sonically demanding than others and so require greater bandwidth. I decide how much of the bandwidth is allocated to certain types of programming, and how to re-allocate bandwidth to maximize the XM subscriber's listening experience and create a service they will be willing to pay for. When XM first launched with 100 channels, there were 29 news/talk/sports channels, compared to 52 now (including comedy and kids programming). There were 65 channels dedicated to music and programmed by XM, compared to 69 now.

10. My programming staff includes five Senior Vice Presidents and Vice Presidents, for news/sports/talk, original programming and content, program operations, and music. XM's Chief Creative Officer is Lee Abrams, who for decades has been well known as one of

America's leading FM radio consultants. Department and program directors work under each of the Senior Vice Presidents. Each music channel has a program director. There are [] people employed in the programming division of XM, [] of whom are dedicated to music programming.

11. XM's nationwide service affects both our content strategies and, we believe, our listenership. During certain parts of the day, subscribers predominantly listen to XM in the car. For that reason, XM has an extended "drive time" programming focus from 6 a.m. to 12 p.m. Eastern, and from 3 p.m. to 9 p.m. According to Arbitron ratings, XM achieves a Time Spent Listening share that tracks from five to nine hours higher per week than AM/FM radio.

XM's Extensive Channel Selection

12. Because of our more than 170-channel platform, XM is able to provide content with mass-market appeal as well as niche programming that will appeal to a smaller, but potentially more dedicated, fan base. Our ability to acquire, deliver and program content on XM is limited by bandwidth and budget. Therefore, my job is essentially a balancing act to find the most effective way to deploy these resources across our channel line-up, and to build an offering that will promote the acquisition and retention of subscribers. Exhibit 1 shows XM's current channel line-up.

13. The left side of the guide highlights our commercial-free music channels, grouped by genre. Our formats feature a spectrum of musical genres as well as mass appeal formats that have been abandoned by terrestrial radio. As shown on Exhibit 1, XM's music channels are grouped under broad genres - - "Decades," Country, Pop & Hits, Christian, Rock, Hip-Hop & Urban, Jazz & Blues, Lifestyle, Dance, Latin, World, and Classical. Each genre features programs or even entire channels that are dedicated to mainstream and/or hit-based music, but

even these most popular genres have “niche” channels, and play music and performing artists that rarely find their way to the terrestrial airwaves at all. By design, XM uses its broadcast capacity to play everything from the top hits to, for example, Celtic and American Indian music programs.

14. Our “Decades” format devotes a channel to each decade from the music of the big band era in the ‘40s to pop hits of the ‘90s. The “Decades” channels for the 1940’s (Channel 4), 1950’s (Channel 5) and 1960’s (Channel 6) almost exclusively play pre-1972 sound recordings. Our seven “Country” channels include a mix of classic country, country superstars, folk, bluegrass and traditional country. Willie Nelson makes his radio home on “Willie’s Place” [] where our on-air personalities hang out in a make-believe country honky tonk saloon and play classic country songs that receive virtually no airplay on terrestrial radio. Willie’s Place also plays mostly sound recordings made before 1972. Other channels that prominently or predominantly feature pre-1972 recordings are Soul Street, Frank’s Place, Top Tracks, Bluegrass Junction, The Village, Real Jazz, and Deep Tracks.

15. Our “Pop & Hits” category has a channel selection expansive enough to include traditional top 40, along with soundtracks, show tunes, and international hits. The XM Christian music channels likewise encompass styles from pop to Southern gospel, and play a deep catalog of well-known and lesser-known songs. Fourteen rock channels give our program directors the space and freedom to play any and every rock artist from the last 50 years, and go far beyond the best-known cuts that receive airplay on commercial FM stations.

16. XM’s “Hip-Hop & Urban” channels provide a home to brand new music, old school, and a channel of classics hosted by Snoop Dogg. Likewise, our jazz and blues channels play modern, contemporary and traditional jazz and blues, with a channel reserved for American

Standards, “Frank’s Place,” named for Frank Sinatra with approval and input from the Sinatra family. “Lifestyles” channels have eclectic and new age sounds. XM has five channels of dance music, four Latin music channels, and three channels of World music. XM’s three classical music channels include “XM Classics,” with traditional classical music, “Vox,” which features opera and vocal music, and “XM Pops,” offering classical favorites in XM surround sound.

17. Our “Biggest Names in News” category includes well-known and valuable television brands, such as CNN, Fox News, CNBC, and the BBC. Some of the most compelling programming is part of our sports programming, including national coverage of all major league baseball and NHL games. Our “Especially for Women” programming includes “Take Five” and the recently-launched “Oprah & Friends” talk and lifestyles channel. XM’s “All-Star Talk and Entertainment” programming includes famous on-air personalities such as Opie and Anthony, [] “Sonic Theater” is an XM exclusive channel that presents short stories, serialized readings from well-loved books, plays recorded live on stage, and radio drama. We now have four “Superstar Comedy” channels. We have two kids and family channels that are not part of our “commercial free” music offering, but nevertheless do include music. XM Kids targets kids under 10 and presents a morning show with running characters, sketches and contests as well as radio theater, kids’ concerts, science shows and other content throughout the day. We also carry Radio Disney aimed at “tweens” with a mix of top 40 music and other entertainment. Instant traffic and weather and regional programming round out the guide.

The Balance of Content Offerings on XM

18. XM regularly reassesses its channel line-up to keep pace with changing consumer and subscriber tastes and trends. Because we have limited bandwidth, a decision to add new

programming channels will in many cases come at the expense of existing channels. For example, when we added the “Oprah & Friends” talk channel, featuring Oprah Winfrey, we were forced to discontinue carriage of one talk channel. These decisions are complex and, unlike commercial radio, they are not based purely on Arbitron ratings. Rather, these decisions are based on the strategic value of the channel to the overall content offering, measured by other factors such as the channel’s ability to attract new subscribers and retain existing subscribers. In some cases, I consider it important to retain a channel with a relatively low but highly devoted listenership.

19. Like any other entertainment medium, we make creative content decisions based on a combination of research, experience and gut instinct. In my experience, it can be difficult to rely solely on listener research when deciding whether to launch a channel. For example, we launched our first comedy channels at the suggestion of some of our programming staff. Comedy had never been done before nationwide in radio, and therefore there was little experience to determine subscriber demand. XM’s comedy channels have turned out to be among our most popular offerings. Another example is our Southern Gospel channel, “enLighten.” It was popular on our internet streaming service, but we did not have a sense as to whether that popularity would translate once we moved it to our satellite radio platform. We decided to try it on the satellite service, and it has emerged as our most popular Christian channel.

20. What we have learned at XM is that we will be more likely to succeed using a combination of diversity, experimentation, passion and expertise for a particular genre, than programming by numbers. The best way for XM has been to build channels with their own particular focus and personality.

How XM Manages its Content Strategy to Attract and Retain Subscribers

21. XM views its channels in terms of their strategic contribution to the acquisition and retention of subscribers. Different types of XM programming may play distinct roles in acquisition or retention. Attached as Exhibit 2 is a chart that illustrates XM's content strategy.

22. It is far more costly to convince consumers to initially subscribe to XM, compared to the cost of retaining them once they have become a subscriber. Consumers need to be shown the value proposition in paying for something that they have traditionally received for free. And of course, different subscribers will perceive different value from across the broad mix of content on the XM channels.

23. The initial challenge in converting consumers to subscribers is to explain, in a way they can grasp quickly, why XM is different from broadcast radio. We emphasize the diversity of programming on XM – the mix of entertainment and information available on XM's non-music and music channels. Potential subscribers should be able to look at the program guide, see a variety of content and channels that appeal to their personal interests, and appreciate that they are unlikely ever to feel that "there's nothing on for me," as consumers have experienced with broadcast radio. Many people become subscribers because of particular content that they are passionate about and that they can't get except by subscribing to XM. A second factor that can readily be understood by potential subscribers is that XM has 69 music channels that are commercial-free. Many XM subscribers listen in their cars, and would rather not spend their commuting and travel time enduring dozens of commercials per hour on AM/FM broadcast radio.

24. To retain subscribers, XM promotes depth, diversity and long-term value in the totality of our programming. Once consumers become subscribers, most initially will listen

almost exclusively to four or five stations at any given time. To retain these new subscribers, part of my job is to get them to discover more value in XM than they originally anticipated when they chose the service -- both on the channels they already listen to, and on channels that they have not yet experienced.

XM Programming Focused on Subscriber Acquisition

25. A major driver of subscriber acquisition is programming that a consumer only can get nationwide or in the car by subscribing to XM. Such “exclusive” programming also can distinguish XM from competitors in satellite and internet radio, as well as terrestrial radio. Most of XM’s exclusive content deals are targeted to promote acquisitions of particular subscriber segments, so XM often pays premium pricing for such programming.

XM’s Exclusive Sports Programming

26. Sports play-by-play programming is a primary acquisition tool. Our sports programming is focused primarily on attracting displaced fans nationwide who are unable to follow games of their favorite team because they do not live in the team’s market or because the games are not carried even in the local market. MLB schedules over 160 regular season games played by each of its 30 teams. With over 2400 regular season games available on XM, we saw a huge opportunity to attract millions of existing major league baseball fans to XM. [

]

27. We also broadcast live 400 National Hockey League (“NHL”) hockey games. We provide basketball and football coverage of four Division One college sports conferences -- the ACC, Top 10, Big 10 and Big East. We broadcast 132 NASCAR races, PGA Tour golf tournaments, Mexican League soccer matches, and select National Basketball Association

games. We recently carried 2006 World Cup soccer coverage and play-by-play. We have a broadcast and marketing partnership with the U.S. Open, which in addition to giving us exclusive rights to broadcast the tennis matches, also gives us significant presence at the well-attended event. Exhibit 3 is a chart showing XM's sports programming strategy.

XM's Talk, News and Information Programming

28. In addition to the sports programming, exclusive talk programming is important to XM's acquisition strategy. XM's line-up includes familiar personalities from the world of broadcast radio, including public radio host Bob Edwards, and the Opie and Anthony show. As one indicator of the importance of such programming and its value to the potential acquisition of new subscribers, XM now licenses programs we produce back to terrestrial radio stations. In April 2006, I led a team that negotiated a deal whereby we licensed a portion of XM's Opie and Anthony show back to the CBS radio network, to run in 23 of the largest markets in America – a first for the satellite radio industry. This serves as a marketing tool to expose listeners to satellite radio, since we use the terrestrial radio portion of the show to promote XM and cross-promote the part of Opie and Anthony's show that remains exclusive to XM (as well as other XM content).

29. Similarly, XM produces "Bob Edwards Weekend," which is distributed by Public Radio International to 37 terrestrial public radio broadcast stations around the country. It features two hours of excerpts from The Bob Edwards Show, which is produced by and heard daily on XM.

30. The Oprah & Friends channel, illustrated on Exhibit 4, debuted in late September, featuring original programming on news, health, fitness, home design, spirituality, and lifestyles from Oprah Winfrey's Harpo Productions. The channel is promoted extensively on Oprah

Winfrey's television program and website, which introduces and promotes XM to Oprah's millions of fans.

31. Another strategy that aids in subscriber acquisition is to broadcast content from well-known television and radio networks with high brand recognition. This programming is not exclusively available through XM, but the brand recognition, the nature and quality of the programming, and the diversity of the programming add to the consumer proposition of value they will get as an XM subscriber. Much of this content is a simulcast of television audio, and allows XM subscribers to listen to this programming in their car. Examples of this type of programming include our channels featuring CNN, Fox News, Air America, Bloomberg Radio, CNBC, BBC World Service, Radio Disney, ESPN and C-SPAN Radio. Notably, Fox News and CNN are available on satellite radio but not terrestrial radio, and Fox News in particular is by contract exclusive to the satellite radio platform. As a result, this content is particularly valuable to us as an acquisition tool. [

] Exhibit 5 depicts

our Talk, News, and Entertainment strategy.

32. Our "Take Five" channel focusing on women's lifestyle issues combines some of the most popular television talk programming (Good Morning America Radio, Ellen DeGeneres, and Tyra Banks) with XM-exclusive programming such as interview shows led by women journalists and talk personalities. This aspect of our programming strategy appeals to a large segment of our potential listenership, women between 25-54 years of age. Exhibit 6 illustrates our women's content strategy.

33. Our XMPR public radio channel includes broadcasts of the News Hour with Jim Lehrer and shows produced by Public Radio International, American Public Media and local

public radio stations, as well as exclusive XM-produced programming like The Bob Edwards Show. Much of XMPR's programming is highly regarded and recognized in the industry. The NewsHour has earned more than 80 awards for outstanding reporting, including many of journalism's highest honors. Bob Edwards has won the DuPont-Columbia Award for radio journalism, the George Foster Peabody Award for excellence in broadcasting, and the Edward R. Murrow Award for outstanding contributions to public radio. On October 17, 2006, ASCAP announced they were awarding the Deems Taylor Radio Broadcast Award to The Bob Edwards Show on XM for excellence in music coverage.

34. XM also carries Instant Traffic & Weather on a 24 hour basis. Through Instant Traffic & Weather, XM broadcasts local road and weather conditions for 21 major metropolitan markets, each over its own dedicated channel (channels 210-230), as well as national emergency information on dedicated channel 247. Unlike commercial radio's 30-second updates, XM traffic and weather channels are broadcast nationally and give full reports on commuting and weather conditions.

XM's Commercial-Free Music Programming

35. Much of XM's programming is designed to appeal to fans, and music fans are part of our target subscriber base. Consumers dissatisfied with the homogeneity of commercial FM radio can really only appreciate the sound of XM when they experience it. XM's special programming is available exclusively from XM music channels, as I will discuss in great detail below, and we believe that the music programming style of many XM channels is truly unique. The expertise and creativity that XM brings to its music programming are essential to distinguish XM from other music listening experiences.

36. 69 of the music channels XM offers are commercial-free. At launch, XM aired commercials on more than half of its music channels, but decided it was desirable for subscriber acquisition to make all XM-programmed music channels commercial-free.

XM Programming for Subscriber Retention

37. XM also focuses substantial effort on creating and acquiring programming as part of its retention strategy, to minimize cancellation of subscriptions (called “churn”). Subscribers want to receive continuing value from their XM subscription, and so exposing them to different content is key to demonstrating the XM value proposition on an ongoing basis.

38. One key strategy is to expand and promote the diversity of programming content available on XM, and to use announcements on one channel to cross-promote programming on other channels they also may enjoy. For example, we can encourage those who subscribed to XM for major league baseball games to try the “ESPN” or “Homeplate” sports talk channels, but they also might enjoy a Bob Dylan’s Theme Time Radio Hour program with songs all about baseball, or Bob Edwards interviews with personalities from the world of sports. Several of our artist-led music shows can be heard at different days and times on different channels, which helps introduce subscribers to new kinds of music. Given the diversity of programming available on XM, many subscribers will hear talk shows on subjects they never knew existed, and may try other talk channels as a result. We will expose them on our music channels to new genres and artists they have never heard on broadcast radio. We call this “the Joy of Discovery” on XM.

39. Some content available on other media platforms, and that is not exclusive to XM, also promotes subscriber retention. As noted above, most of XM’s news, and many of our public affairs talk, channels have content that also is available on broadcast radio, television, and even

on Sirius, and therefore are not completely exclusive to XM. These channels have high brand value that serves our acquisition strategy, but they also promote retention. Subscribers know they don't have to leave XM and search the AM or FM radio dial – XM has it all. We also have us an opportunity to cross-promote the programming on different channels within these broadcasts, and the high listenership for many of these channels creates important revenue opportunities to sell advertising time.

40. Music listeners dissatisfied with terrestrial radio will appreciate XM for a variety of reasons. In addition to the commercial-free aspect of 69 XM music channels, listeners frustrated by the limited formats of broadcast radio will enjoy the diversity of genres of music programming on XM channels. Those tired of narrow playlists on hit-driven radio stations will find breadth and depth in XM's programming. True music fans will appreciate the different ways that XM showcases music and musicians – the “art” of programming on XM. Exhibit 7 is a chart that describes the strategy behind some of the key components of the XM-created music programming. I discuss how we program music in more detail below.

XM's Artist-Led Programming

41. Another key strategy for our music channels is to create special original programming that keeps the channels sounding fresh. XM's artist-led shows give performers free rein to play whatever music they want to play, to share and talk about what inspires them as artists and as fans, to talk about their favorite places to perform, or just tell stories about their experiences recording and touring.

42. Examples of popular artist-led shows are Bob Dylan's “Theme Time Radio Hour,” where each week he plays songs on a different theme; Tom Petty's “Buried Treasure,” where he digs up vintage rock and roll tracks; Wynton Marsalis's program, “In the Swing Seat,”

where he talks about the style of particular jazz artists; Snoop Dogg's "Welcome to da Chuuch," programmed from his home with music and guests from the world of hip-hop and rap; and, Quincy Jones's multi-series programs on jazz, rhythm and blues, and soul music. "SongStories with Graham Nash" spotlights Nash interviewing many of music's most talented and successful songwriters about the stories behind their most classic songs, their overall creative process and the art of songwriting itself. Artists of different generations and styles drop by to "takeover" a channel station, and have complete freedom to talk about whatever they want, play what they want, and enjoy programming from XM's extensive music library. Exhibit 8 describes some of XM's long form specialty programming. Exhibit 9 is a series of articles concerning Bob Dylan's critically-acclaimed "Theme Time Radio Hour" show.

XM's Concert Series and Special Music Events

43. XM produces programming featuring performances by mainstream and up-and-coming musical artists. We created a series called "Artist Confidential," which is an hour-long program that spotlights one major musical artist or group with interviews and at least 20 minutes of live performances, both audio and video recorded before a small audience in XM's Performance Theater in our studios in Washington, D.C. or occasionally in our New York "Jazz at Lincoln Center" studios. These performances cover every genre of music, including an offshoot program called "Classical Confidential" that airs on our classical music channels. We have done more than 50 Artist Confidential and more than ten Classical Confidential programs, with artists as diverse as Paul McCartney, Bonnie Raitt, Cecilia Bartoli, Leonard Slatkin, Clint Black, Herbie Hancock and Odetta. Exhibit 10 is a listing of all the Artist Confidential performances. Exhibit 11 is a page from the XM website describing our Artist Confidential programs. Excerpts from these interviews and individual recorded Artist Confidential

performances may be programmed later on both music and non-music channels. This gives us the opportunity to both cross-promote the Artist Confidential series and to provide our subscribers with exclusive content that they can hear only on XM.

44. XM Kids' "Rumpus Room" concert series is an exclusive in-studio kids' concert series featuring the best Children's recording artists. Like an Artist Confidential for the under 10 set, it has featured artist such as Laurie Berkner, Dan Zanes, They Might Be Giants, and The Baha Men.

45. Our "Then ... Again ... Live" series invites classic rock artists into the studio with us. They recreate in live performance today, track for track, some of their most famous recordings, and give their personal takes on some of their landmark works – such as how they were recorded, what the band was like at the time, and what they might do differently today. Exhibit 12 is the page from our website describing the Then ... Again ... Live programs. We have also created a series called "Artist to Artist" where a young performer interviews an established artist who inspired him or her (such as the up-and-coming country performer Dierks Bentley interviewing country legend George Jones). Exhibit 13 is a page from our website describing XM's Artist to Artist programming. From time to time, artists drop in on one of our channels and program their own radio show. Out of this concept comes our "Offstage" series, where XM visits different artists at their home or home studio and allows them to host and program a one hour show that mines their personal collection of music. Exhibit 14 is the page from our website describing the Offstage programs.

46. All of these programs are created by XM, and some can be expensive to produce.

[

] Nevertheless, these XM-created music shows create ongoing value for the existing subscriber base, and play an important role in subscriber retention.

47. XM also broadcasts special concert events. In total, XM has broadcast more than 5,000 concert performances (in addition to our “Artists Confidential” series). Our “Mainstage” series includes concerts from established artists, often carried live (though at times recorded) from large multi-artist festivals such as Bonnaroo, Rock in Rio, Live 8, and Farm Aid. Exhibit 15 is a page from the XM website listing Mainstage concerts we have presented. In addition, we often feature small-venue concert recordings from emerging artists, particularly in our “SRO” series, which exposes new talent to XM’s music audience. These venues include the B.B. King Blues Club in New York City. Exhibit 16 is a page from the XM website listing SRO series performances we have presented.

48. XM is also the official satellite radio partner of the Grammy Awards. Only twelve of the Grammy Award categories are televised, which gives XM 120 categories of music performances and awards to broadcast. At Grammy time, XM dedicates a channel to Grammy-related programming, allowing us to broadcast exclusive pre-show coverage of Grammy Week events and specials highlighting the nominees in various music genres. We cross-promote the Grammy Awards channel across many XM channels, and play Grammy-nominated and award music on a variety of the XM music channels in virtually every Grammy category.

Music Programming and its Role in Creating the XM Music Experience

49. In a broad sense, recorded music is a commodity that gains enhanced value through the context in which XM showcases it and in which our subscribers experience it. Without a guide, you are walking into a vast library with no idea of where to start or where to go next. XM’s programmers and on-air talent provide that context, like having a music expert

spinning discs in your living room. Channels are developed with a particular personality or point of view, reflecting the thinking of the programmers and our on-air talent.

The Process of Music Programming on XM

50. All of the more than 2.5 million songs in the XM music library are available to programmers on the XM computer system. Program directors determine the criteria important to creating the character of their respective channels. These include types of music and musical artists (such as era-based music for our “Decades” channels), rotation of songs and artists, the theme of the channel, and the particular themes and flows for each program segment.

51. Music programmers add, delete, and order songs into a playlist. The programmers can control the transitions between the songs, determining the duration and nature of the transition (fade out, fade out/fade in, and so forth). Slots are determined for talk by our on-air personalities and promotional announcements for programming on that channel or on other XM channels. On many of XM’s channels, our on-air personalities are free to share their knowledge and enthusiasm for the music and the artists, personal anecdotes about the music and the musicians, and useful information such as concert calendars and record release dates.

The Art of Music Programming on XM

52. When hiring music channel program directors, I look for people with a deep knowledge of the genre of the channel they will be programming. My philosophy is that the technical and managerial aspects of programming are something that can be taught, but the art of selecting music cannot, and that is why I look to hire true music experts. Classical music experts like Robert Aubry Davis and Martin Goldsmith, jazz aficionados like Maxx Myrick, blues expert Bill Wax, American standards expert Jonathan Schwartz, or disk jockeys like George Taylor Morris, Earle Bailey, Mike Marrone, and Eddie Kilroy – to name but a few of our many

broadcast legends, each with more than 30 years of professional radio and music experience -- offer our audience thoughtful and unparalleled perspectives on music in the way that it is programmed and the personal stories and information they can tell their audience.

53. XM's program directors are guided by their understanding of music, not by industry data or consultants. They are music people, not sales people. Many of our program directors drive our listeners' tastes in music. In addition to Bill Wax, Mike Marrone, Maxx Myrick, and Robert Aubry Davis, these tastemakers include Jessie Scott (X Country), Billy Zero (XMU), Tobi (XMU), Bill Evans (XM Café), Seth Neiman (Hear Music), Ben Smith (Fine Tuning), Erik Range (Ethel), Ward Cleaver (XMLM), Lou Brutus (Fungus), Lisa Ivery (The City), Leo G. (RAW), Skyy (BPM), and Trinity (Watercolors).

54. XM programs a number of hit-based music channels that give subscribers both the familiar popular formats they would hear on terrestrial radio, and much more. Our "hit-driven" channels are not mere juke-boxes that play the hits. We program these channels to engage our listeners. For example, these channels may feature disk jockey discussion and expertise, entertainment news and interview excerpts. As another example, the top tunes in the nation that play on our "20 on 20" channel are determined by listener email votes, phone calls, letters, text messages and website comments that allow our subscribers to request songs for specific channels. By actively engaging the audience in creating the Top 20, we believe we are creating greater subscriber loyalty to XM.

55. The real power of XM music programming is showcased on channels that we specifically program to be unique audio "destinations" for our listeners. Listeners strongly connect with how the content is presented on these channels, and develop a passion for XM programming. On channels such as Deep Tracks, The Loft, XMU, X Country, The Move, and

our comedy channels, our programmers play music and material subscribers may never have heard before, or haven't heard in years. Programmers are free to choose from the XM library, which contains more than 2.5 million sound recordings and is constantly growing as we add both new and old music to our collection. Program directors regularly showcase new music, and are knowledgeable and sophisticated enough to know the new releases in their particular genres. This expertise and experience creates tremendous value to the XM subscriber, and gives XM its character.

56. Taking just one of these "destination" channels as an example, Deep Tracks regularly features sets that connect the music in ways that appeal to subscribers' intellect and aesthetic sense over and above the appeal of the song itself. Songs often are connected by theme as well as by the style, tempo or key. Every week, Earle Bailey takes the listener on a "Head Trip" playing hours of songs built around a particular word or phrase or theme in the song titles. The "Undercover" program features versions of well-known songs covered by other artists. Our "Fresh Tracks" show features new music releases by long-established and well-loved artists, some of whom get little airplay on today's hit-driven broadcast radio. We have a weekly show intended for headphone listening, with tracks where record producers experimented with stereo effects. We run the Grateful Dead hour, featuring live performances from among hundreds of available recorded concerts. Author and music enthusiast Bill Fitzhugh every week sends us a hand-mixed vinyl show, where he shows how recording artists picked up the musical riffs and themes from other records. Deep Tracks features the weekly hour-long shows by Bob Dylan and Tom Petty, recordings from the King Biscuit Flower Hour, Artist Confidential interviews and concerts, Then...Again...Live shows, and more. Deep Tracks admittedly is one of XM's more

adventurous channels, but this one channel illustrates the breadth, depth, and intensity of XM programming efforts and our programming philosophy.

57. When subscribers tune in one of the XM “destination” channels like the Decades channels, or Deep Tracks or Bluesville or Real Jazz (and many others), they get much more than a passive entertainment experience. Subscribers enter the minds of music experts who entertain, inform, stimulate, and surprise, in a way that appeals to music lovers as well as music listeners. Many of these channels recreate a certain location or time in words and music. Engaging the listener to pay attention and think about the music is another key to what makes XM special to our subscribers. In these respects, it is the thought, effort, expertise and expense that XM brings to these channels that makes subscribers (including by the way recording artists themselves) love listening to music on XM.

58. Not all XM music channels employ live personalities. The overall feeling or emotion XM is trying to convey will help determine whether to have live announcers. For example, The Loft channel often has interviews and stories surrounding the music as much as the music itself. By contrast, “Flight 26,” “Big Tracks,” and other hits-based channels require fewer DJs. Alternative rock channels like “Fred” and “Lucy” each have a distinct character, which is conveyed through prerecorded drop-in announcements that express the personality of the channel or tell stories rather than talk about the music itself. The alternative rock channel that focuses on newer music, “Ethel,” features disk jockeys, artist interviews, live performances, and specials such as artists who “take over” programming the channel.

59. Within the framework of the music channel themes, XM also creates “mini-series” programs that showcase music and artists in creative ways. The 60’s channel features a weekly show called “Sonic Sound Salutes,” which recreates the heyday of Top 40 radio. During

this show, XM's The 60's channel is transformed into one of the classic 1960's radio stations from around the country, with a mix of songs of the era with recordings that include original station jingles and on-air personalities. Recently, XM recreated Chicago's WLS and Kansas City's WHB. Exhibit 17 is a recent article from The Washington Post about these classic Top 40 station recreations. The ambitious "IT" special spanned the various Decades channels. Starting in Mid-August 2006 on The 40's channel and progressing on each successive Decades channel, XM played sequentially every record that reached the top 40 for each year up to 2006. The songs appeared on the appropriate music channels for each decade, with promotional announcements appearing on neighboring channels before the jump to a new decade. Showcasing this panorama of popular music took nine weeks to complete.

60. Several XM channels focus prominently on exposing music by new artists. For example, "XMU," "Hear Music," "XM Café," "The Verge," and "Fine Tuning" each include in their format substantial amounts of new music by less established artists that fit well in the genre or philosophy of those channels. "The Village" has just added "Songs to Hang on Stars," a program that showcases new contemporary folk artists. Many other channels include new music by less established artists, who benefit from the exposure on XM. Many XM channels also play music by artists that otherwise receive little or no airplay on commercial radio. Exhibit 18 is a listing of XM channels known for their exposure of new artists.

61. These are the kinds of compelling musical experiences that XM creates, and that listeners cannot hear anywhere else but XM. It is this programming expertise and creativity that makes XM music important to our subscribers.

The Promotional Aspects and Appeal of XM

62. Since the mid-1990's working in programming for radio stations through my work at XM today, a significant aspect of my job has been working directly with recording labels, artist management and artists. XM's Chief Creative Officer Lee Abrams has been working with record labels, managers and recording artists since the 1960's. XM is an important promotional vehicle for performing artists and record labels. By our design, XM's music channels provide a national platform to expose recording artists to audiences that appreciate new and different music. Musicians and their labels gain tremendous benefits from this exposure on XM, whether it be a new song from a well-known artist or a lesser-known musician who our subscribers discover on XM.

63. The variety and depth of our programming highlights XM's promotional value to a wide variety of musical artists. Terrestrial radio no longer provides an outlet for certain musical genres in many media markets. Three of the largest radio markets - - New York, Los Angeles, and San Francisco - - do not have a country station. Other disappearing formats include classical music, dance stations, oldies and "modern rock." Exhibit 19 lists formats carried on XM that are missing in major media markets. By contrast, XM's nationwide coverage includes three classical channels, five dance music channels, seven country music channels, fourteen rock channels, and a number of channels, such as certain Decades channels, that play music that used to be heard on AM/FM radio. Our Decades channels are becoming increasingly popular as local radio stations drop formats playing music from the 1960s - 1980s.

64. XM's national reach enables XM to promote music that local radio formats have left behind. When records in these genres succeed in radio markets that do not support that music format, we believe, and we have been told this by record labels and artists, that some

credit for that success is due to airplay on XM. A recent success story: in Los Angeles, after the last local country station changed formats, XM stepped in to sponsor a country music concert. With XM's support, the concert sold out 11,000 tickets.

65. Initially, record labels treated XM as they would a small local radio broadcaster. XM had to purchase hundreds of thousands of CDs to launch its service in 2001. Labels began providing XM with promotional copies of sound recordings, and occasionally brought artists by for in-studio interviews and, helped us with promotions. Yet, many record labels did not fully understand the real power of XM as a national music promotional platform. That power is more than just mere numbers, although the numbers themselves are impressive. [

] Exhibit 20 shows ratings for the second quarter of 2006, and compares weekly listenership on a few of XM's top music channels to other popular national print media and major market radio stations.

66. Artists and their managers, however, immediately grasped XM as a preferred media outlet for musicians to promote their work. When they heard XM, they "got it". They also are impressed with the critical mass audience we have achieved. Artists appreciate the transparency that exposure on XM provides. They speak directly to current and potential fans in extended, natural and personal formats where they can portray themselves and their music the way *they* think is best. They are interviewed by seasoned broadcasters and music experts who know and appreciate the artists' work. There are no commercial breaks or heavy-handed promotion for the channel done at their expense. For example, when Janet Jackson was in Washington in August 2006, as part of a 3-city tour, she granted newspapers and other media outlets short interviews at her hotel. The only DC-area media outlet she visited in person was XM. She spent two hours visiting the urban music channels at XM, and granted an exclusive

interview to XM. Attached as Exhibit 21 is a compact disc with audio clips (and written transcription of these clips) from just a few of the many artists who have talked on-air about XM as a direct conduit from musicians to their fans, unlike the homogenized experience of today's commercial FM radio.

67. The promotional power of XM is evident from the number and nature of the artists and labels that want to work with us. Our Artist Confidential series has featured legendary artists like Paul McCartney, Robert Plant of Led Zeppelin and Brian Wilson of the Beach Boys, and newer stars like Coldplay, Pink and the Dixie Chicks. Our Classical Confidential series has presented interviews and performances with conductor/pianist Leonard Slatkin, young violinist Joshua Bell, singers Cecilia Bartoli and Andrea Bocelli, and flautist James Galway. The XM Then...Again...Live series has featured full album performances of classic rock artists like the Allman Brothers Band, Jethro Tull, Christopher Cross, and Cheap Trick. Virtually all of these artists came to XM for the freedom to discuss, perform and promote their music in the way they want to be portrayed, and received no monetary compensation from XM. In addition to these Artist Confidential shows, XM has conducted and played literally thousands of interviews with artists.

68. Artists want to be part of the XM experience. Most guest celebrity DJs program their shows for free or for a modest stipend to cover their expenses. Many of XM's artist-led shows were born at the suggestion of the artists themselves, because they appreciated XM's approach to programming music and wanted to become part of it. For example, Tom Petty proposed the idea of his Buried Treasure show to XM. Quincy Jones came to XM with his ideas for multi-part special music programs. Willie Nelson proposed to XM the idea of changing the "Hank's Place" country channel to "Willie's Place." Hip-hop artists Snoop Dogg, Ludacris,

Trick Daddy, and Chamillionaire came to XM with the ideas for their own personal programming. Blues legend B.B. King loved the Bluesville channel so much that we awarded him the honorary post of the “Mayor of Bluesville,” complete with the key to the “city.” Singer/songwriter Graham Nash created his “SongStories” show because of his appreciation for XM as a platform for musicians. Country star [] heard Willie’s Place on XM in his car, and became so moved by XM’s programming approach to showcasing music that he called us up and has begun working with us on the concept for a show of his own. Other musicians who host shows on XM include folk artists Christine Lavin and John McEuen, and country legend and Hall of Famer Bill Anderson.

69. Bob Dylan was interested in working with XM on “Theme Time Radio Hour” because he was an avid XM subscriber who appreciated that XM played music he hadn’t heard in decades anywhere else. On August 28, XM played Bob Dylan’s newest recording, “Modern Times,” in its entirety before it hit the stores. After it hit the stores, many retail outlets (including Sony’s online retail website, Sony Connect) packaged the CD with a bonus CD containing an episode of his XM radio show. “Modern Times” entered the charts at number one, and we have been told that XM contributed to that success.

70. Jazz trumpeter and scholar Wynton Marsalis didn’t know much about XM when we first approached him to do a show on our Real Jazz channel. But once he heard XM, he was excited at the opportunity to create his “In the Swing Seat” show and to have broadcasts of concerts from Jazz at Lincoln Center, where he serves as Music Director.

71. One of the announcers on our X Country (Cross-Country) channel is a younger musician named Jack Ingram. His work on XM has helped him build his recording career, and to attract concert audiences all across America.

72. XM also creates long-form specials of three-to-eight hours' duration chronicling the history of a recording artist. Interviews, archival material and the complete range of their music is featured in these programs. This "Complete" series has, in the past, covered artists such as The Eagles, Chicago, Les Paul, Shania Twain, Toby Keith, Bobby Darin and the Rolling Stones. Artists are excited to work with XM on these programs for the exposure it provides to our listeners.

73. We regularly receive telephone calls and correspondence from artists, managers and labels thanking us for playing their music. Many labels, artists and managers tell us that airplay on XM has increased sales of their recorded music, attesting to the value of XM. As one example, in October 2004, country star George Strait was about to release a greatest hits CD. XM created a program that interviewed him about his recordings, played all of his previous hits and premiered his new single. The program aired in 2005, just before the CD came out. George Strait's Label Head of Promotion told us that he had his single biggest one day sales ever when the new CD was released. Exhibit 22 includes emails from labels, artists and managers describing the promotional impact of XM.

74. To create some special programs, XM receives a waiver from the recording labels. As I understand it, XM's license to perform sound recordings ordinarily limits how many songs from an individual artist or album may be played consecutively or during a certain period of time. Many labels willingly give us these waivers for particular artists. [

] These waivers make possible programs like “Liner Notes,” in which a musical artist walks listeners through a one of their new albums.

75. One of the simplest ways that XM helps promote sales of music and artist awareness is also one of the most important. Obviously, people can’t buy music or learn about new artists without knowing what it’s called and who’s singing and playing. The screen on every XM radio displays the name of the artist and the title of the song that the subscriber hears. This is information that XM has to enter into its database, and transmit separately to the receivers. Terrestrial radio stations rarely give this information to their listeners, but we consistently have made this additional information easily available to our subscribers.

76. XM also has helped to create and release CDs of old and new music. Concord Records has collaborated with XM to create CD compilations. The first of these, “Blistering Licks,” was released in June 2006, and features giants of jazz such as John Coltrane, Miles Davis, Wes Montgomery and Art Tatum. In the fall of 2006, Starbucks began selling the first of a series of music compilations on CD with some of the best XM Artist Confidential performances. XM has also commercially released a Watercolors smooth jazz CD, [

]

77. XM’s promotional power is especially important for new artists, who appreciate the airplay and support we give them. It has become increasingly difficult for many musicians to get airplay on terrestrial commercial and college radio stations. Billy Zero, program director of XMU, receives hundreds of packages every week from musical artists and groups at various stages in their careers. He listens to each one personally, and has the freedom to choose which ones to air. Because of his taste and dedication, XM has given substantial early play to bands who went on to broader commercial success, and our track record has given XM greater

credibility with record labels. We support new music from artists like The Cardigans, who were popular years ago, but recently have had less access to airplay. Unsigned bands who have gotten record deals within a year of exposure on XM include Morningwood (recently featured on David Letterman's show), Stellastarr, Antigone Rising and Grammy award-winning rapper Rhymefest. Jennifer Nettles of the band Sugarland is one of XM's country music success stories. Within a year of exposure on XM, she had a record deal. Her duet with Bon Jovi has gone to the top of the Billboard Hot Country Songs chart. XM also participated in Bon Jovi's "Have A Nice Gig" challenge, where unsigned bands nationwide submitted their best single to XM Satellite Radio for the chance to be Bon Jovi's opening act. The band selected to open for Bon Jovi at the Meadowlands soon after was signed by a record label.

78. Last year, XM instituted the "XM Nation Awards." XM listeners are invited to vote online in a number of categories concerning the music and sports programming they hear on XM. Exhibit 23 consists of email from listeners who told us their music purchasing habits were influenced by XM.

79. For several years, certain XM channels have reported their playlist information to trade press, such as Billboard Magazine. Recently, thirteen XM channels began reporting their airplay statistics to Radio and Records ("R&R"), a leading industry publication that compiles national airplay charts. The XM channels which report to Billboard and/or R&R are 20 on 20, Flight 26, The Blend, Ethel, Squizz, Highway 16, The City, The Heat, Suite 62, Watercolors, BPM, The Message, and XM Café. Because of the influence of XM on these charts, it is difficult for a song to hit Number One on those charts in the United States without support from XM. These industry publications recognize the promotional power of XM, and confirm XM's status as an important promotional vehicle for musicians and record labels. By influencing

which songs make the industry charts, XM also helps generate airplay for those songs on terrestrial radio stations, which further promotes sales of music downloads and CDs.

Differences between XM and Other Types of Radio Services

80. There are many key differences between programming on XM and commercial terrestrial radio. As discussed above, XM provides subscribers with a wide variety of high-quality content with high production values. XM has more channels than the number of radio stations in a typical geographic market. XM carries more news, sports and talk programming than the typical radio market. XM's music channels are programmed by experts in their field based on the qualities of the music rather than the Billboard charts, and DJ'd by on-air personalities with decades of broadcast experience. Most are commercial-free. XM carries traffic and weather information for 21 markets that is instantly available on every XM car radio, and includes extended reports rather than just a brief "headline." XM has an emergency alert channel that, because they are sent by satellite, can provide critical information to subscribers even when weather knocks out local broadcasting, as we did during the massive hurricane season of 2005. XM programs channels in music formats that are rarely available in most markets. Even local broadcast stations having the same music format as a particular XM channel generally do not play the same depth and breadth of music. XM features more special programming than broadcast radio. As AM/FM stations continue to remove DJs from their programming line-up, XM keeps informed on-air talent who share their music expertise with the audience. Whereas AM/FM radio stations rarely back-announce the songs they play, XM transmits data that identifies the artist and song title for tracks played on XM channels. Simply stated, we offer the variety of content that subscribers want, and much more of it.

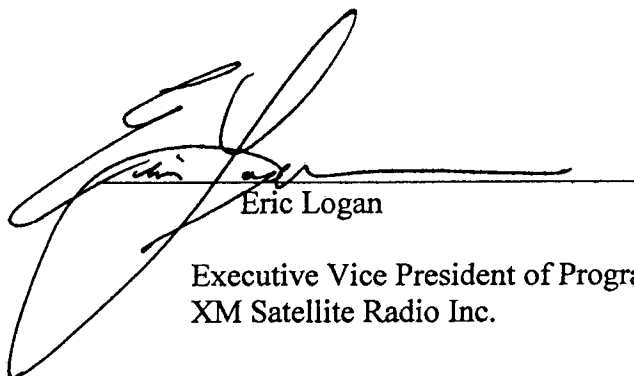
81. XM also differs from internet delivery of programming. My experience is that webcast services don't provide the same experience of a guided "musical journey" like XM does, and clearly they do not commit the people, technology resources, and budget that we do. For example, many of these services play songs, without logic or segue transitions between songs like a jukebox or an iPod Shuffle. The services also do not have a staff of experienced and knowledgeable on-air personalities, of the size and breadth of XM's, who can entertain, stimulate and inform the listener. These services do not feature the many types of special programming created by XM exclusively for our listeners. When they do provide special original programming to listeners, the content is generally offered on an interactive basis rather than as part of an overall program schedule or strategy. At present, internet webcasts also lack the mobility and portability of XM and therefore are not programmed to take into account automotive and portable device listening trends as we do.

83. While there are many other forms of audio entertainments available to consumers, XM provides a compelling offering that combines sports, talk and music content to create an "XM Experience" that consumers are willing to pay for on a monthly basis. On a daily basis, XM's dedicated programming staff uses its expertise to provide XM subscribers a service that provokes, surprises, educates, and informs them about music and the world.

Certification

I declare under penalty of perjury that the foregoing is true and correct.

Dated: Washington, DC
October 30, 2006

A handwritten signature in black ink, consisting of a large, stylized 'E' followed by 'L' and 'G' in a cursive script. The signature is written over a horizontal line.

Eric Logan

Executive Vice President of Programming,
XM Satellite Radio Inc.

4. Cook

PUBLIC VERSION

**Before the
LIBRARY OF CONGRESS
Copyright Royalty Board**

In the Matter of)
)
Adjustment of Rates and Terms for)
Preexisting Subscription and) Docket No. 2006-1 CRB DSTRA
Satellite Digital Audio Radio Services)
_____)

DIRECT TESTIMONY OF STEPHEN R. COOK
(ON BEHALF OF XM SATELLITE RADIO INC.)

Overview

1. My name is Stephen R. Cook. I am currently employed by XM Satellite Radio Inc. ("XM") and was recently named Executive Vice President, Automotive. I have been employed by XM since 1999, when I was hired as Senior Vice President of Sales and Marketing. Prior to joining XM, I held key management positions with GTE Wireless Inc., Procter & Gamble, and Conxus Communications.

2. To succeed, XM must market its satellite radio business through multiple automotive and retail channels in order to acquire and retain subscribers cost-effectively. XM is proud that currently it has more than 7 million subscribers to date. My testimony will focus primarily on XM's early and ongoing marketing and sales efforts that are responsible for creating this subscriber base.

3. Marketing a new product like XM is particularly challenging and expensive for several reasons. As an initial matter, XM must convince consumers that its product is different

enough from FM radio and other audio entertainment, and compelling and unique enough in itself, to justify purchasing new equipment and paying an ongoing monthly subscription fee. It was also important to generate rapid subscriber growth to demonstrate the viability of the service considering the large capital investment. Further, actual and potential satellite radio customers are spread across a wide variety of different demographic segments. In order to attract, build and maintain its subscriber base, XM's marketing has emphasized several of its differentiating features:

- Diversity and depth of XM's programming appealing to mass and niche key market segments
- More channels and more choice than our competitors
- Exclusive non-music programming available on XM
- Absence of commercials and unique and exclusive programming on XM's music channels
- Nationwide coverage and outstanding digital sound quality of XM's signal

Additional drivers of subscriber growth include the competitive price of XM's monthly subscription as well as the competitive price and quality of the radio receivers using technology that XM develops in-house.

4. The automotive and retail distribution channels are crucial to XM's marketing strategy. While expensive, these distribution channels are necessary to expose consumers to XM's service and radio options. Broad distribution of XM Radio through the new automobile market is essential to our success. Looking forward, the automotive industry is increasingly focused on XM's ability to provide data services to subscribers, such as traffic flow and parking information, sports scores, stock quotes, and messaging (e.g. maintenance reminders). This emphasis on data services by our automotive partners complements other growth areas for XM,

including increasingly popular navigational offerings, consisting primarily of weather information, for airplanes and boats.

5. From a marketing/distribution perspective, I believe that a significant increase in royalties for music rights would impose a tremendous burden on XM's ability to market and grow its service. Many of our equipment subsidies and partner distribution costs are fixed. [XM is still at an early enough stage of its life cycle that exogenous financial shocks, such as that caused by a significant increase in royalties, could cause irreparable long-term harm.

Marketing and Sales Experience Prior to Joining XM

6. I have over 20 years of experience as a marketing professional and executive. I received an undergraduate degree at Duke University in 1978 and an MBA in marketing and marketing strategy from the University of North Carolina in 1983. My first marketing job was at Procter and Gamble. From 1983 to 1988, I was a Procter & Gamble Brand Manager, and ran the marketing efforts of several national household cleaning product brands.

7. In 1988, I moved over to Providence Journal Cellular, an early cellular service provider that was later acquired by GTE, to become part of GTE MobilNet (later named GTE Wireless). Like XM, Providence Journal Cellular had to purchase licenses, build a subscriber base from scratch, and convince consumers to purchase receivers in order to use the service. Initially, these receivers (referred to by many users in that early period as "car phones") were large and expensive, and almost all billing was per minute, with limited availability of heavy use plans. Over time, phone size was reduced and our costs and pricing came down. I held senior

marketing positions (including Vice President of Marketing for the post-merger company), and in 1993, became President of GTE's Southeast Region, which included Kentucky, Tennessee, Northern Alabama, and parts of Virginia.

8. In 1996, I left GTE to become Chief Operating Officer of Conxus Communications, a start-up company. Conxus marketed "Pocketalk," an innovative service that used paging spectrum to carry voice messages. At Conxus, I was responsible for marketing, sales and distribution, advertising, product development, customer service, and network engineering. I also directed distribution alliances with several regional paging companies and voice messaging providers. After initially raising \$500 million in capital, we paid \$90 million for 1 of the 2 national licenses available, and launched service in top ten markets such as New York and Washington, D.C. However, the service proved to be ahead of its time. We were unable to raise additional money, and the company went out of business. At that point, I was recruited for XM.

Marketing and Sales Roles at XM

9. In 1999, I joined XM as Senior Vice President of Sales and Marketing. For the past seven years in that position (and later as Executive Vice President, Sales and Marketing), I was responsible for all aspects of XM's sales and marketing, including the development of distribution channels, pricing strategy, hardware promotional spending, and marketing campaigns.

10. XM's key marketing and sales goal is to acquire and retain subscribers. My particular focus with respect to subscriber acquisition was to build XM brand awareness, educate consumers about satellite radio and the XM service, develop retail and automotive distribution channels, execute promotions to drive sales, and develop radio receivers that were attractive in

terms of price and design -- all while minimizing subscriber acquisition costs. With regard to retention, my primary focus was on customer care with regard to both XM's billing operations and call center. As I discuss in detail below, important metrics regarding subscriber acquisition and retention include subscriber acquisition costs, costs per gross addition, subscription cancellations (known in our industry as "churn"), and the rate of conversion from trial subscriptions to long-term subscriptions.

11. There are approximately [] people in the marketing and sales department of XM. The department's budget -- including payments of various subsidies to automakers and retailers that I discuss more thoroughly below -- totaled [] in 2005.

12. Because of the critical importance of our relationship with the automotive industry to the marketing and distribution of XM radios and the XM service, it was decided that I should focus all of my time and energy on this part of the business. In July 2006, I was named Executive Vice President, Automotive. Nearly 60% of the automotive manufacturers who sell cars in the United States, including General Motors, Honda, Hyundai, Toyota and Nissan choose XM as their exclusive factory-installed satellite radio provider. GM offered XM satellite radio factory-installed in more than 50 car, truck and SUV models for the 2006 model year.

XM's Marketing and Sales Strategy

13. XM's fundamental marketing and sales goal is to acquire and retain subscribers as cost-effectively as possible. Satellite radio has a significant cost structure and is not viable solely as a niche market service. XM is a mass market product and needs to be adopted by a large cross-section of U.S. consumers to achieve the scale needed to support satellite radio's large fixed-costs, infrastructure maintenance and upgrades. Our target market is the 230 million registered vehicles and over 110 million households in the United States, including a focus on

the portable audio market. By reducing the cost of the radios and keeping the subscription rate reasonable, XM can become a viable mass market service; however, today analysts estimate that XM is still losing [] million a day in 2006.

14. Our on-going challenge is to create consumer demand for XM's service. Early on, the primary marketing messages were XM's breadth of programming, digital sound quality, coast-to-coast coverage, absence of commercials on XM produced music channels and its exclusive non-music programming. Nationwide transmission coupled with robust signal strength was crucial, especially since ten percent of XM's early adopters were long-haul truck drivers. Over time, XM's marketing has evolved to focus more on programming. Our value proposition relative to terrestrial radio includes the following offerings: exclusive programming (especially certain sports, news and talk programming); the most channels, diversity and breadth of programming; absence of commercials on XM produced music channels; and digital sound quality. We must effectively communicate to consumers reasons to pay for XM service and radio instead of staying with traditional commercial-supported AM/FM radio even as those traditional terrestrial radio broadcasters are moving to a digital platform and reducing their commercial load in response to competition.

15. In addition to our primary competition from terrestrial radio broadcasters and other sources of audio entertainment (iPod, MP3s, cellphone, etc.), XM must compete with Sirius for satellite radio subscribers. We compete with Sirius in a number of ways. For example, we promote our exclusive content and breadth and quality of XM programming. We also compete by constantly innovating our device offerings to consumers. And, importantly, we compete with our distribution deals, particularly with regard to distribution of our radios factory-installed in automobiles ("Original Equipment Manufacturer" or "OEM" distribution).

XM's Relationships With Automotive Companies

16. With the automotive distribution channel, we are literally and figuratively along for the ride when XM receivers are “factory installed” in the manufacturer’s vehicles. Initially, convincing automakers there was a demand for XM radio was a difficult and expensive proposition. General Motors, for example, negotiated very favorable terms when it became XM’s first automotive partner in 1999, two years prior to the launch of our service. [

], we have substantial payment obligations to GM. In my view, this partnership was necessary for XM’s survival, as GM has the largest share of the United States automobile market and based upon experience to date, XM believes one of the best ways to penetrate the mass market is via the automotive channel. More than 90 percent of GM’s model-year 2006 and 2007 U.S. vehicles offer factory-installed XM radios as either an option or as standard equipment. During the summer of 2006, GM announced that it had produced its five millionth vehicle with factory-installed XM Radio. Other automakers such as Honda, Toyota, Nissan and Hyundai followed GM’s lead and signed up as XM partners.

17. Reaching agreements with our automotive partners continues to require economic incentives from XM. Specifically, XM subsidizes the hardware installed in cars and often gives these automotive companies an activation commission. Some automakers also get a revenue share from XM on the monthly service fee paid by subscribers. There are other types of costs involved as well. For example, [] These new car buyers generally receive three free months of XM service with their purchase of a new automobile with a factory-installed XM radio. The goal is expose the car owner to XM and to “convert” (a metric described in more detail below) as many as possible into self-paying subscribers.

18. While distribution through automotive companies is fruitful, it requires substantial ongoing investment over many years to bear this fruit because car models are designed so far in advance. *See* Cook Exhibit 1 (Flow of Marketing Costs of the Automotive Distribution Channel). To date, XM estimates that it has acquired more than 3 million subscribers through the automotive distribution channel. We expect the automotive channel to increasingly serve as a significant source of new subscribers.

XM's Relationships With Retailers

19. Through the retail distribution channel, we market directly to consumers with the assistance of mass market retailers of electronics products, such as Circuit City, Best Buy, and Wal-Mart. Like our automotive partnerships, initially these retailers had to be aggressively pursued. [

] See Cook

Exhibit 2 (Flow of Marketing Sales Costs of Retail Distribution Channels).

20. Growth trends are slightly different for the retail channel than for the automotive channel. The key to driving growth at retail is developing receivers that consumers want in terms of look and functionality, and at a price (for the monthly subscription and hardware), that is consistent with the consumers' perceived value of the service. This process has a very fast development cycle requiring significant research and development expense to keep pace with the changing trends in consumer electronics. [

] In total, XM spends [] annually on its retail distribution channel.

XM's Exclusive Content Deals

21. XM's exclusive content deals are vital to our effort to acquire subscribers by offering programming not available on Sirius, terrestrial radio, or other entertainment services. For example, our sports programming includes live coverage of every Major League Baseball game, and National Hockey League team, and full coverage of certain Division One college football and basketball conferences. Fans nationwide can follow games of their favorite teams on XM's service, regardless of whether those games are broadcast in their local media market. Indeed, after the launch of Major League Baseball on XM, [] of new subscribers surveyed in the spring of 2005 said they signed up for XM because of its MLB programming. A new channel, Oprah and Friends, also provides XM with compelling original programming from Oprah Winfrey's company. [

] We did this with the belief that we could attract Oprah's millions of fans to become XM subscribers.

XM's Subscription Rate Structure

22. We also seek to retain subscribers through multi-year commitments and multiple receivers within the same household, on-time and accurate billing and by incentivizing subscribers to pay by credit card. XM offers its service at a subscription fee of \$12.95 per month for the first receiver, and a "family" plan rate of \$6.99 per month is available for each additional receiver. XM also offers discounted service fees for paying one to five years in advance.

23. XM launched service in 2001, charging \$9.99 a month for our service. When we later raised our rate to \$12.95, it resulted in higher churn, or the number of paying subscribers who cancel their service after a period of time. *See* [

] Raising our service fee also negatively affected our conversion rate from the automobile channel, decreasing the number of new subscribers we acquire through this important channel. *See* [

] The conversion rate is the number of subscribers who receive a free three month trial with the purchase of a new car with an XM radio installed, and elect to become self-paying subscribers when the trial period expires. [

] In fact, competition from various existing services such as iPods, and other audio entertainment services, may exert downward pressure on our pricing in future years. Free HD Radio digital channels, whose music programming competes directly with XM's, are not subject to sound recording performance royalty fees or statutory sound recording performance license limitations such as the sound recording performance complement. Most major cellular carriers

offer streaming audio services and Wi-Max networks, as well as new “rich multimedia” technologies such as MedioFlo and DVB-H, will also carry music in the future, adding other competitors for satellite radio.

Results and Effectiveness of Marketing Approach

24. XM now has more than seven million subscribers. According to Greystone Communications, a media research and planning firm, the pace to the first five million subscribers was faster than other new technology introductions, other than DVDs, such as cable television, internet service, cell phones and MP3 players.

25. I look to several key indicators on a monthly basis to evaluate the effectiveness of XM’s marketing efforts to drive subscription growth. I first consider gross additions of new subscribers, which is all new self-paying subscribers and all new subscribers who purchased a car with an XM radio from our automotive partners and are in their three month trial period. Looking at Cost Per Gross Addition (CPGA) gives me a broad sense of how cost-effectively we are adding subscribers. Overall, XM’s cost to acquire a new subscriber has averaged a bit over []. I also look at subscriber disconnects, as measured by churn and conversion rates. Data concerning subscriber disconnects help me to gauge the effectiveness of our retention strategies and the ongoing appeal of XM’s service. XM’s churn rate has averaged between [

] of our self-paying customer base per quarter for 2006 to date. Regarding our automotive trial conversion rate, in the first half of 2006 approximately [] of new car buyers converted to self-paying subscribers. See Cook Exhibit 4. Overall, these metrics allow me to gauge XM’s growth, and determine how cost effective we are at adding new subscribers and retaining existing subscribers as a result of our marketing and retention strategies.

26. Our service has achieved broad listener appeal across subscribers of different ages. [

] We believe the broad appeal of our service is due to the combination of XM's music, news, sports and talk offerings, which appeal to a wide demographic. By contrast, other new technologies such as iPods have a younger user demographic. Our subscribers are currently

[] men, but we expect our gender demographic to move towards [

] as more women convert to paying subscribers through our automotive partnerships. *See id.*

27. The broad appeal that XM strives for makes marketing an expensive, on-going challenge. We need to advertise the broad benefits of XM with an easy-to-convey message. Internet, newspaper and magazine advertisements can be used on a limited basis for targeted marketing to reach specific segments of the population. However, expensive national television is required to reach the mass market.

28. As discussed previously, XM's relationships with automotive companies and retailers and their marketing support also play a crucial role in subscriber acquisition and retention, as does XM's exclusive programming. XM also realizes tremendous benefits from adding well-established, major brands to its programming. Our entire channel line-up, particularly on the news, talk and sports side, is replete with brands that are well-known to consumers, thanks to the extensive marketing efforts of other companies. These include information sources, such as CNN, Fox News, ESPN and Bloomberg, and personalities, such as Willie Nelson, Oprah Winfrey, and Dale Earnhardt, Jr., who are recognized and associated with

certain programming by millions of Americans. *See* Cook Exhibit 6 (XM Program Guide). Our ability to market the new XM brand is greatly helped by aligning XM with established programming sources.

29. We also conduct ongoing advertising and promotional activities, such as television, radio, print and Internet advertising, and distributing sample programming and marketing materials at retail outlets, concert venues, motor sports events, and on the Internet to generate consumer interest. General Motors and Honda sponsor national and local print and television advertising that features the XM logo and message. Our 2005 holiday season “Listen Large” marketing campaign featured TV spots with Ellen DeGeneres, Snoop Dogg, Derek Jeter, David Bowie and Martina McBride. We promoted our exclusive relationship with the PGA Tour by offering handheld radios for rental and purchase at PGA events. XM’s current “ON” TV and print advertising campaign seeks to deliver a distinctive, creative message about the breadth and appeal of XM’s programming, and represents a new strategy to reach potential subscribers in the “early majority” category. Our strategy of providing potential subscribers with the opportunity to experience the XM service leads to a number of marketing alliances where consumers sample our service offering. Consumers test-driving XM-enabled General Motors and Honda/Acura vehicles or renting AVIS, Alamo, National and Zipcar rental cars can experience XM radio first-hand and passengers flying JetBlue, AirTran or United sample a subset of XM’s programming during their flights.

Marketing Impact of New Product Development

30. XM’s internal research and technology development capability allows us to create more marketable receivers than would sole reliance on third-party manufacturers. Our product development team can easily identify and design features that, from a marketing perspective,

should be included in radio design. Based on our research and contact with consumers, we can determine features that subscribers and potential subscribers want -- for example, the number of presets they would like or how the navigation controls should work -- and work with R&D to develop user-friendly radios. The channels of communication are more open and the process of product development faster and more efficient than an outsourcing arrangement would allow.

31. One example of the benefits of XM's in-house R&D is the development of the Inno and other portable radios. The ubiquity of Apple's iPod and the need to compete with it and other MP3 players led XM to invest heavily in the development of a portable device that allowed subscribers to take both live XM and their own recorded music with them. XM now has these radios on the market, and we believe that the ability to listen to live and recorded XM as well as the consumer's own MP3 files offers significant advantages over iPods.

32. XM's partnership with Napster, one of the most recognizable brands in digital music, was also instrumental in marketing a device that could store music that the consumer purchased or owned, to be more competitive against iPods and other MP3 players. Apple's iTunes enables users to purchase and organize music for easy upload to their MP3 players. From my perspective, XM needed to market a similarly seamless way for subscribers to purchase music they hear on XM. The "XM + Napster" partnership does just that, by giving XM subscribers a single, user-friendly interface for accessing, purchasing, and managing music. Most importantly, XM + Napster allows subscribers to discover new music via XM's diverse and extensive line-up of music broadcast programming -- a feature that iPods lack. We hope that XM + Napster will give XM a competitive and marketing advantage; however, time will tell whether this effort and whether Napster itself will be successful.

Data Services as a Growth Opportunity

33. Another key component of XM's long-term success will be data services, an innovative line of business that XM has helped develop from scratch. *See* Cook Exhibit 7 (XM Advanced Capabilities – Beyond Audio). Automakers are particularly focused on data services, and XM's offerings have been a factor in XM's success in getting automakers to include XM receivers as factory-installed equipment in their cars. GM, for example, sees XM's data services as a complement to its popular On-Star system, and [

]. I believe XM would not have reached a long-term agreement with many of these automakers without providing access to data services and dedicating private bandwidth to those manufacturers.

34. One data service currently offered by XM is "NavTraffic," the first nationwide satellite-based data traffic information service that enables an overlay of current traffic conditions on a map on the navigation system in subscribers' vehicles. *See* Cook Exhibit 8. The NavTraffic service is available in some Acura, Cadillac, Infiniti, Nissan and Lexus models, and also is available in some aftermarket equipment. [

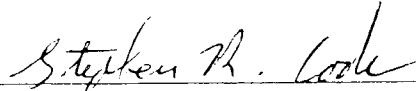
] Subscribers pay premium prices for these data services, with packages starting around \$30 per month. [

]

Certification

I declare under penalty of perjury that the foregoing is true and correct.

Dated: Washington, DC
October 30, 2006

A handwritten signature in cursive script, reading "Stephen R. Cook", is written over a horizontal line.

Stephen R. Cook
Executive Vice President,
Automotive,
XM Satellite Radio Inc.

5. Vendetti

PUBLIC VERSION

**Before the
LIBRARY OF CONGRESS
Copyright Royalty Board**

In the Matter of)	
)	
Adjustment of Rates and Terms for)	
Preexisting Subscription and)	Docket No. 2006-1 CRB DSTRA
Satellite Digital Audio Radio Services)	
_____)	

**DIRECT TESTIMONY OF MARK J. VENDETTI
(ON BEHALF OF XM SATELLITE RADIO INC.)**

Overview

1. My name is Mark J. Vendetti. I am currently employed by XM Satellite Radio Inc. (“XM”) as Senior Vice President of Corporate Finance, and have been employed by XM in this capacity since May 2005. My testimony will address XM’s financial performance. The financial data in my testimony is based on published XM results through 2005. The data for 2006 and beyond is based on an average of forecasts from 19 analysts who cover XM.
2. XM’s creation of its satellite radio service from scratch has required enormous investment, expected to total over \$6.3 billion for capital and operating expenditures through the end of 2006. Creating a new industry for satellite radio (along with Sirius) has been unavoidably capital-intensive and risky, requiring both up-front costs and substantial ongoing expenses. Indeed, before XM could even attempt to sign up its first customer, it had to purchase rights to the broadcast spectrum, design and launch a technologically complex satellite system and terrestrial repeater broadcast system from the ground up, build a state-of-the-art broadcast

operations center, develop compelling programming that consumers would be willing to purchase, gain access to key distribution channels through deals with automakers and retailers, and develop the first satellite radio receivers. Moreover, since XM has launched this unprecedented new service, XM has made ongoing investments to compete in the marketplace, maintain and improve its infrastructure, technology and programming. In 2005 alone, for example, XM incurred over \$1.3 billion of necessary operating and capital expenses.

3. Unfortunately, XM does not yet generate revenue sufficient to cover these costs. XM's cumulative investments since inception were over \$3.7 billion at the end of 2005. While XM has been making progress slowing down the rate at which its losses accumulate, the average loss remains \$1.9 million per day, based on analysts' forecasts. In addition to these net losses, XM currently carries \$1.3 billion in debt that it must repay, convert to equity, or refinance starting in 2009.

4. This multi-billion dollar investment has produced many positive results, as evidenced by XM's growing customer base of over 7 million subscribers. Given current projections of subscriber growth and assuming the 0.88% royalty rate proposed by the services, XM is forecast to be profitable for the first time in 2010. During the next six years, a 0.88% royalty rate is estimated to generate payments exceeding \$106 million from XM for the record labels.

5. A higher royalty rate will give XM three basic options – absorb the higher costs while keeping revenue and other costs where they are, attempt to increase revenue by charging higher monthly subscription fees, or attempt to decrease other costs – and all three may delay or disrupt XM's path to profitability. [

]

Alternatively, attempting to increase revenue or cut other costs could negatively impact

subscriber growth (*e.g.*, less marketing or higher monthly fees would lead to fewer new subscribers) which is a key driver of XM's financial performance. This result, in turn, also could delay the date XM becomes profitable and make it more difficult and potentially more expensive for XM to repay or refinance its debt.

6. One way to put these multi-billion dollar aggregate numbers in perspective is to look at costs and revenue on a per subscriber basis. In 2009, for example, XM is predicted to spend approximately \$90 to acquire a new subscriber, and is expected to realize \$3.47 in profit per month from the average subscriber. This means the new subscriber must remain a subscriber for over four years (\$90 up front cost / \$3.47 monthly net revenue, taking into account XM's subscriber "churn" rate) in order for XM to make any profit. [

]; the good news is that the "payback period" has been shrinking over time as the cost to acquire a new subscriber has decreased or remained flat and average subscriber profit per month has increased. However, XM will remain in a difficult financial situation until this period shrinks to a reasonable timeframe.

7. In summary, XM has made substantial investments to launch and operate a brand new service and successfully attract over 7 million paying subscribers. However, given forecasted losses of \$1.9 million per day, XM remains in a financially challenging "start-up" phase and is still several years from profitability and must repay, convert, or refinance its \$1.3 billion in debt while achieving that profitability. In my opinion, a royalty rate higher than 0.88% will put XM at greater financial risk by delaying the date when XM becomes profitable and could impact XM's ability to pay off its debt and attract new capital.

Financial and Accounting Work Experience

8. I have more than 20 years of experience in financial and accounting positions at major corporations. After receiving my undergraduate degree at Amherst College and an MBA at Harvard in 1989, I joined Procter & Gamble (“P&G”) as a financial analyst. In 1991, I was promoted to accounting manager for a P&G manufacturing operation. In 1993, I became project manager for Worldwide Finance and Accounting Systems. In that capacity, I led a finance team that created P&G’s first global reporting and executive information system. I continued up the ranks at P&G, managing the forecast and strategic planning for P&G’s largest unit. From 1999 until I left P&G in 2001, I was Associate Finance Director for the Home Care division, which consisted of ten P&G brands with combined sales of \$1.5 billion.

9. In 2001, I left P&G and went to Sears Credit Card division (now part of Citigroup). I was recruited to develop and lead the Business Analysis group. My responsibilities included financial planning for the Sears Gold MasterCard Portfolio, which had \$13 billion in receivables, and management of the \$200 million Marketing, Risk and Pricing budgets across the portfolio. Budget and financial analysis for direct mail acquisition and retail credit programs was added to my responsibilities shortly after joining Sears Credit. I led Sears Credit due diligence efforts during the acquisition of the Lands’ End portfolio and a potential bid on another major portfolio.

10. In April 2003, I was promoted to the Senior Finance Executive for the Sears Credit division. My responsibilities included directing finance activities such as forecasting, analysis, reporting and accounting for the entire credit business, which had \$29 billion in receivables and \$5 billion in revenue. I supervised 17 managers. In November 2003, Sears sold the credit division to Citigroup. During the transition from Sears Credit to Citigroup, I was finance leader for Sears and, upon the sale to Citigroup in November 2003, became Vice President of Finance

for the acquiring company. Among my responsibilities was to work with the marketing department to implement a new acquisition strategy.

11. I joined XM in 2005. My responsibilities include directing finance activities such as forecasting, analysis, reporting and budgeting. I have a staff of 45 to assist me. As Senior Vice President of Corporate Finance, I have a global understanding of XM's business, and the expenses and revenues involved with every aspect of the business. I track XM's revenue and revenue projections, the majority of which are derived from subscriber activation and subscription fees, advertising sales, and equipment sold directly by XM to consumers. I also track XM's expenses by department and function. This would include all costs associated with XM's Washington, D.C. broadcast, operating and administrative facilities, its studios in New York, Nashville, and Chicago, and its Florida-based Research and Development department. I report directly to Joseph J. Euteneuer, XM's Executive Vice President and Chief Financial Officer. My resume is attached as Vendetti Exhibit 1.

XM Has Invested Billions To Create Satellite Radio Service

12. XM started its satellite radio service from scratch, which required substantial investment in spectrum licenses, infrastructure, technology, programming, and distribution/marketing. From inception through the end of 2006, XM is predicted to make total investments of over \$6.3 billion in capital and operating expenditures. *See Vendetti Exhibit 2.* These costs include an up-front investment of approximately \$1.5 billion expended before the service was even launched as well as ongoing operational costs and additional capital expenditures subsequent to launch. As shown on Vendetti Exhibit 2, XM's cumulative investments have increased over 320%, from \$1.5 billion, in the past five years. This trend is projected to continue, with XM's cumulative investment expected to total almost \$14 billion by 2010.

13. In addition to these cumulative costs, XM currently is carrying \$1.3 billion of debt that was incurred to launch and operate XM's service. As set forth in Vendetti Exhibit 3, 30% of this debt matures in 2009, and therefore must be retired, converted to equity, or refinanced by then.

[

] Satellites and

repeaters, like all electronic equipment, eventually wear out. [

] XM also is developing a new satellite, XM-5, during the next [], and I expect that the total capital expenditures associated with XM-5 could [].

Despite Improvement, XM Remains Unprofitable

14. These costs incurred by XM to date have far exceeded revenue. For example, comparing cumulative investment to cumulative revenue on Vendetti Exhibit 2 shows that XM's investments through 2006 are expected to exceed revenue by more than \$4.5 billion. This cumulative deficit is projected to decline after 2008, but to remain over \$4.8 billion in 2010.

15. Unfortunately, XM has yet to be profitable. Since the launch of its service in 2001, XM's annual net losses have ranged from a minimum of \$284 million in the first year to a net loss of \$667 million last year. See Vendetti Exhibit 4. See also Exhibits 5 through 11, which are the Form 10K Annual Reports that XM filed with the Securities and Exchange Commission. Losses have continued in 2005. Analysts predict an annual loss of \$696 million, which translates to an average loss of \$1.9 million every single day of the year.

16. Given XM's current financial trends, projections suggest XM will achieve profitability for the first time in 2010. As noted above, however, even with profits in 2010, XM's investments through 2010 will outstrip XM's cumulative revenues by more than \$4.8 billion. Moreover, XM will have to retire, convert to equity, or refinance \$400 million of debt in 2009, prior to achieving profitability. Both this life-to-date deficit and substantial debt load will continue to put financial pressure on XM for some time after it achieves profitability.

Under The Rate Proposed By The Satellite Radio Services,
XM Would Pay The Record Labels At Least \$106 Million

17. The royalties that XM pays for the rights subject to this proceeding are a substantial expense. When calculated on a percentage of revenue basis, these costs also grow with revenue, so the projected increase in XM's revenue means XM would have to pay an increasing amount of royalties.

18. In this proceeding, the satellite radio services have proposed a royalty rate of 0.88% of revenue. As depicted in Vendetti Exhibit 12, this would require royalty payments from XM totaling \$64 million over the next four years, including a payment of \$21 million alone in 2010. While I understand that a royalty rate set in this proceeding would apply for six years, most analysts have forecasted XM's revenues only through 2010, so I cannot calculate a royalty payment for 2011 and 2012. Given the upward trend of XM's revenue, however, I assume the royalty payment for those two years would exceed the \$21 million payment, resulting in a total six year payment of at least \$106 million.

A Higher Royalty Rate Would Further Delay Profitability

19. As I mentioned earlier, XM is predicted to be profitable for the first time in 2010.

[

] Furthermore, XM has a large fixed cost base due to the significant infrastructure required to support its complex business. This leaves only variable costs to cut to offset a higher royalty fee. Cutting important variable costs in key areas like customer service, technology and especially marketing could also have a negative impact on our business. Considering the enormous investment made to date by the company, I believe that a 0.88 percent royalty rate will generate more than \$106 million in compensation to the labels while allowing XM to continue on its path to profitability.

20. [

] Tony Masiello (broadcast operations), Eric Logan (programming), and Steve Cook (marketing) testify in detail about the role of these categories in XM's business.

21. To provide a better understanding of their testimony, I will describe the components of these cost categories. Specifically, I will address each of six major cost categories comprising XM's \$1.2 billion of total costs in 2005 that are shown on Vendetti Exhibit 13. I will also breakdown XM's \$558 million of revenue realized in 2005. In this context, I want to note that I

have reviewed the allocations that Dr. Woodbury has made of line items in Exhibit 13 (although I have not reviewed Dr. Woodbury's testimony in its entirety). Based upon this review and my analysis of these costs, I believe that Dr. Woodbury's allocations are conservative (*i.e.*, he over-allocates these costs to what he calls "Hand-off Provider Costs").

22. Before I begin, however, I want to clarify the accounting concept of "depreciation and amortization" that I use in this description. As you know, depreciation and amortization represent the costs associated with a capital expenditure, spread out relatively evenly over the purchased asset's useful life rather than accounting for an expenditure all at once. For example, a capital expense of \$100 million for a factory that has a 10 year useful life typically would not appear in the financials as a \$100 million charge in the first year, but rather would appear as "depreciation and amortization" in each of the 10 years of the factory's useful life (e.g., \$10 million per year). Vendetti Exhibit 14 demonstrates how XM capital expenditures actually occurred disproportionately as up-front expenditures, although as an accounting matter XM reflects these costs spread out over time using depreciation and amortization.

a. XM's Annual Marketing and Sales Costs

23. Steve Cook describes XM's Marketing and Sales Costs, and why they are vital to subscriber growth. *See* Direct Testimony of Steve Cook. XM's costs relating to Marketing and Sales activity were \$604 million in 2005. This is what XM must pay to distribute and sell its radios and subscription service in its automotive OEM, retail, and direct channels as well as handle customer service. As set forth in Vendetti Exhibit 15, these costs are comprised of subsidies and distribution to OEMs and retailers (44%), advertising and marketing (27%), customer care and billing operations (13%), cost of merchandise sold by XM (7%), amortizing

XM's guaranteed payments to GM over the life of the contract (6%), and marketing retention and support (4%).

24. Subsidies & Distribution. Costs of subsidies and distributions were \$265 million for 2005. These costs include the subsidization of radios manufactured, commissions for the sale and activation of radios, and certain promotional costs. This is what XM must spend to encourage the manufacturers to keep the retail price of an XM radio attractive to the consumer. These costs are primarily driven by the volume of XM-enabled vehicles and aftermarket radios manufactured, sold and activated through our automotive OEM partners and retail channel, and promotional activity.

25. Advertising & Marketing. Advertising and marketing costs were \$163 million for 2005. During the year, XM has featured advertising with popular figures such as Derek Jeter, Ellen DeGeneres, David Bowie, and Snoop Dogg. These activities build XM brand awareness, recognition, sales, and subscriber growth. XM has achieved success in these areas through coordinated marketing campaigns that include advertising and marketing through various media, as well as through promotional marketing relationships with partners such as DirecTV and AOL. These costs are driven by XM's advertising needs and contractual obligations to XM's content providers. In addition XM invests heavily in cooperative advertising with OEMs and retailers. These include both contractual and discretionary marketing development funds that XM's distribution partners use for Sunday circulars, in-store promotions, and OEM dealer marketing and training. These costs are driven by XM's contractual relationships with its distribution partners.

26. Customer Care & Billing Operations. Costs of customer care and billing operations were \$76 million for 2005. These include expenses from customer care functions as well as internal

information technology costs associated with subscriber and billing applications. These costs are primarily driven by the size and rate of growth of our subscriber base. The quality of our customer care operations significantly affect subscriber retention: no subscription-based business survives without keeping its customers satisfied, and these expenditures keep the help-line phones ringing with friendly staff to answer.

27. Costs of merchandise/equipment sold directly by XM. The costs of merchandise/equipment sold directly by XM to future subscribers were \$41 million for 2005. XM sells merchandise directly to consumers through XM's online store, customer care, in cooperation with many of our partners, and at XM-owned kiosks. Costs of merchandise consist primarily of the costs of radios and accessories, including hardware manufacturer subsidies, and related fulfillment costs associated with the direct sale of this merchandise. These costs are primarily driven by the volume of radio sales as well as the cost of promotional programs used to sell the radios.

28. Amortization of GM liability. Costs associated with amortizing XM's liability to GM were \$37 million for 2005. This is what XM has paid under contract to GM to secure GM's participation as an early partner in XM's venture. These costs are driven by XM's contractual obligations to GM.

29. Retention and Support Expenses. Retention and support are the fixed costs associated with XM's Marketing Department, consisting primarily of headcount and related overhead expenses for the staff responsible for driving all of XM's consumer marketing activities. Retention and support costs were \$22 million for 2005.

b. XM's Annual Programming and Broadcast Costs

30. Eric Logan details XM's programming and content acquisition strategies and Tony Masiello describes XM's broadcast operations and satellite and terrestrial facilities. *See* Direct Testimony of Eric Logan; Direct Testimony of Anthony J. Masiello. XM's costs relating to its programming and broadcast totaled \$160 million in 2005. As set forth in Vendetti Exhibit 16, these costs comprise of, as a percentage of the foregoing total costs, programming and content (63%), satellite and terrestrial (26%), and broadcast operations (10%).

31. Programming and Content. Costs of programming and content were \$101 million for 2005. This includes both music and non-music programming costs. The costs of music programming are associated with the 69 commercial-free music channels on XM. This includes costs of programming staff, on-air talent, and payments for third party content. It also includes the costs of exclusive XM music programming like the Artist Confidential series. It does not include copyright royalties or advertising revenue shares paid to content providers. The costs of non-music programming includes not only getting access to the news, talk, and sports that XM broadcasts, but also the expert presentation, arrangement, commentary, and variety that make XM unique. These line items include the creative, production and licensing costs associated with the approximately 100 non-music channels of XM-original and third party content. Much of this programming is either exclusive to XM or branded.

32. Satellite & Terrestrial Repeater Operations. Tony Masiello details the effort required to develop, launch, operate, and maintain the XM service, including information regarding XM's satellite and terrestrial repeater network. *See* Direct Testimony of Anthony J. Masiello. Costs of satellite and terrestrial repeater operations were \$42 million for 2005. This is the cost of keeping the satellites on course and the ground repeaters humming. These costs include telemetry,

tracking and control of XM's satellites, in-orbit satellite insurance and incentive payments, satellite uplink, and all costs associated with operating our terrestrial repeater network such as power, maintenance and operating lease payments as well as XM's personnel costs.

33. Broadcast Operations. Costs of broadcast operations – such as getting content feeds to XM so they can be sent up to the satellites – amounted to \$17 million for 2005. This line item includes costs associated with the management and maintenance of systems and facilities, software, hardware, production and performance studios used in the creation and distribution of XM-original and third party content via satellite broadcast, the Web, and other new distribution platforms. The advertising trafficking (scheduling and insertion) functions also are included.

c. XM's Depreciation and Amortization

34. Depreciation and amortization. Costs of depreciation and amortization were \$146 million for 2005. This figure represents the portion XM had to expense in 2005 of all capital expenditures put into service to develop, build, launch, and bring online its satellite and terrestrial repeater network as well as information technology hardware and software.

d. XM's Other Costs

35. XM's other costs totaled \$111 million for 2005. As set forth in Vendetti Exhibit 17, these costs are comprised of net interest expense (76%), other loss (24%), and equity loss (0%).

36. Net Interest Expense. Net interest expense was \$84 million in 2005. It is comprised of interest that XM must pay on its over \$1 billion of debt, less the interest that XM earns from its cash balances.

37. Other Loss. Other losses were \$27 million for 2005. This line item consists mainly of de-leveraging expenses, which are the cost to XM of incentives for early conversion of XM's debt.

During 2006, XM replaced its existing debt structure, moving from higher-rate secured debt to lower-rate unsecured debt.

38. Equity Loss. There were no equity losses in 2005. However, beginning in 2006, XM will realize losses associated with its 23% equity investment in Canadian Satellite Radio.

e. XM's Annual General Corporate Costs

39. XM's costs relating to general corporate operations totaled \$110 million in 2005. As set forth in Vendetti Exhibit 18, costs are comprised of general and administrative costs (40%), research and development (28%), information technology and facilities administration (22%), and advertising sales (9%).

40. General & Administrative. General and administrative costs were \$44 million in 2005. General & administrative expense primarily include management's salaries and benefits, professional and legal fees, general business insurance, as well as other corporate expenses. These costs have been predominantly driven by personnel costs and infrastructure expenses to support our growing subscriber base. As XM's subscribership grows, so do its administrative responsibilities.

41. Research & Development. Tony Masiello describes XM's research and development approach, including the decision to develop consumer equipment in-house. *See* Direct Testimony of Steve Cook. Costs of research and development were \$31 million for 2005. Unlike terrestrial radio broadcasters, XM had to design almost every aspect of its technology, from the satellites to the design of the radio receivers. XM's in-house Innovation Center continues to develop and enhance new applications and hardware devices to leverage XM service-delivery infrastructure. These initiatives drive R&D expenses going forward. In

addition, XM's Innovation Center plays a key role in assisting automotive OEM partners in coming on-line with factory-activated units.

42. Information technology and facilities administration. These costs were \$24 million for 2005. These costs include direct operating expenses associated with new system development and maintenance of existing infrastructure for all of the information technology at XM. This accounts for back office operations, general corporate operations, and IT infrastructure – everything from data storage to phones. Also included are all facilities costs associated with the maintenance and upkeep of all XM locations, including salaries and benefits associated with the facilities team,

43. Ad Sales Expenses. XM's ad sales expenses were \$10 million for 2005. These expenses are the direct costs to support the ad sales group that sells XM's inventory of advertising, primarily on XM's non-music channels. These costs include items such as salary, benefits, sales commissions, travel, trade media, event marketing, training or demonstration radios, promotional items, partner events, partner marketing, marketing research & analysis, printing, office supplies, office space rental, computer, and telecommunications. They exclude the content provider revenue share with those third parties that get a percentage of XM's ad sales revenue.

f. XM's Annual Revenue Share and Royalties

44. Revenue Share and Royalties. Revenue share and royalty costs were \$94 million for 2005. These expenses consist of several items. First, they include shares of subscription fees that XM pays to some of the distribution partners who directly cause XM to acquire those subscribers. XM's revenue share arrangements vary by retail and OEM partners. Without financial arrangements such as these with its distribution partners, those partners would have little incentive to market XM radios and service the consumers that are essential to XM's business.

These costs will grow as our subscriber base grows. Second, they include copyright royalties which are the cost of the payments XM makes to composers, music publishers, performing artists, and record labels for public performances of their creative works broadcast on XM. These expenses typically are driven by the royalty rates and XM's revenue. Third, they include content provider revenue share costs paid to content providers such as Fox News. These costs are driven by ad sales revenue generated on third-party channels. Finally, they include technology royalties that are paid to radio technology providers and revenue share expenses associated with the licensing of technology (for example, the technology in our chipsets). These costs are driven by XM's subscriber base and volume of units produced or activated.

g. XM's Annual Revenue

45. XM's revenue is expected to total \$558 million for 2005. As set forth in Vendetti Exhibit 19, this revenue is comprised mainly of subscription revenue (90%), with a small amount of revenue from other sources. I describe these revenue components of XM's operating income immediately below.

46. Subscription Revenue. Subscription revenue was \$503 million for 2005. This revenue consists primarily of the monthly subscription fees XM charges for its satellite radio and data services. As Steve Cook describes, the undiscounted standard subscription fee is \$12.95 per month, and the monthly fee for data services [

]. Subscription revenue growth is predominantly driven by the growth in our subscriber base but is affected by fluctuations in the percentage of subscribers in our various discount plans and rate changes. Additionally, the timing of subscriber additions affects comparability between time periods given that this revenue is recognized as the service is provided.

47. Net Ad Sales. Revenue from net ad sales was \$20 million for 2005. This revenue consists of sales of advertisements and program sponsorships, primarily on XM's non-music channels, that are recognized in the period in which they are broadcast. Net ad sales revenue includes advertising aired in exchange for goods and services, which is recorded at fair value. Net ad sales revenue is presented net of agency commissions.

48. Revenue from direct sales of equipment by XM. Revenue generated by direct equipment sales was \$18 million for 2005. This is what XM receives from its own sales of satellite radio receivers. This revenue is recognized at the time of shipment or delivery of the equipment. Discounts on equipment sold with service are allocated to equipment and service based on the relative fair values of delivered items.

49. Activation Fees. Activation fees were \$10 million for 2005. These are one-time fees that range from \$9.99 to \$14.95. They are non-refundable and recognized ratably over a 40-month period.

50. Royalties & Other Revenue. Royalties and other revenue were \$7 million for 2005. This includes gross receipt taxes, broadcast/recording activities, and invoicing fees, as well as revenue generated through XM's relationship with Canadian Satellite Radio. In 2006, an increasing portion will be driven by syndication arrangements such as with Opie & Anthony.

XM's Current "Payback Period" For A New Subscriber Is Prohibitively Long, But Is Decreasing

51. Another way to analyze XM's financial performance is on a per subscriber basis. Specifically, by comparing the cost to add new subscribers to the profit generated by those subscribers, it is possible to determine how many months or years subscribers needs to remain signed up for XM before they generate a profit (the "payback period").

52. A metric XM uses to measure the cost of adding a new subscriber is Cost Per Gross Addition (“CPGA”). As XM has achieved scale by successfully growing its customer base to over 7 million subscribers, CPGA has declined from \$430 in 2002 to \$109 in 2005. *See Vendetti Exhibit 20.* This means that on average XM spent \$109 on total distribution and marketing costs to add each subscriber in 2005. CPGA is forecasted to fall even further by 2010, to \$90.

53. To determine profitability, XM also has to analyze the profit or loss generated by the average new subscriber. This per subscriber profit or loss is different from the \$12.95 monthly subscription fee. First, there is a reduction for the discounts XM offers, such as the multi-year discount and family plan. This reduced the average monthly subscriber revenue to \$9.82 in 2005. *See Vendetti Exhibit 21.* Next, costs are subtracted out. This converts the gross revenue to a profit or loss. In 2005 it was a loss of \$3.93. This per subscriber per month figure is forecast to become increasingly positive over the next five years, however, turning into a profit of \$2.24 by 2008 and growing to a profit of \$4.26 in 2010.

54. By simply dividing the costs of acquiring a new subscriber (\$93 in 2008) by the profit generated by the new subscriber (\$2.24 per month in 2008), it is possible to determine how many months a new subscriber must keep subscribing until the profit they generate “pays back” the costs incurred by XM to acquire them. Using analysts’ 2008 cost and profit figures this payback period is 41 months, or about 3½ years. *See Vendetti Exhibit 22.* [

] Fortunately,

however, the length of this period has been getting shorter, as CPGA has been decreasing and profit per subscriber has been increasing. These positive trends are projected to continue and result in a payback period of only 21 months by 2010. *See Vendetti Exhibit 22.* During this transition, however, XM’s financial performance on a per subscriber basis remains challenging.

Moreover, until there is a profit on a per subscriber per month basis in 2007, the payback period is not meaningful (*i.e.*, because the average subscriber is generating monthly losses instead of profits XM cannot recover the CPGA expended to acquire the subscriber) .

55. In sum, XM has needed to invest billions of dollars supplied by investors and creditors to create and operate a brand new service for consumers, and will require substantial additional investment for ongoing operations and capital expenditures during the next several years.

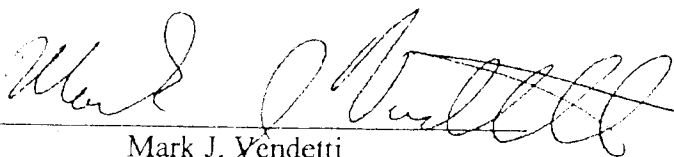
Although XM has succeeded in attracting over 7 million subscribers and is forecast to achieve profitability by 2010, to date it still has yet to achieve a profit either on an aggregate or per subscriber basis. The 0.88% royalty rate proposed by the services already would result in a payment by XM to the record labels of at least \$106 million over 6 years. A higher rate would further delay XM's profitability and potentially impact its ability to access the financial markets. In my opinion, this could put XM at greater financial risk.

56. XM also proposes a set of associated terms along with the rate proposal. I have reviewed these terms. While compliance with these terms could impose significant administrative burden and expense on XM, XM would support adoption of these terms in this proceeding.

Certification

I declare under penalty of perjury that the foregoing is true and correct.

Dated: Washington, DC
October 30, 2006



Mark J. Vendetti

Senior Vice President of Corporate Finance,
XM Satellite Radio Inc.